

# MacAddict



## FIRST LOOK APPLE'S NEW ULTRAFAST POWER MACS

- All With Dual G4s
- 1.25GHz PowerPC
- Advanced Graphics
- Double-Speed RAM
- 167MHz System Bus
- Insane Storage Options

## GRAPHICS GALORE

25 stylin' apps for every pixel pusher

## BEYOND MTV

Use iMovie to create your own music video

## BURN, PC, BURN!

Create CDs that play nice with PCs

the best

# 101 TIPS

- SPEED UP YOUR SOFTWARE
- MASTER THE FINDER
- PUMP UP CLASSIC
- TAME THE TERMINAL
- GET HELP ON THE WEB

and much,  
much more



SEND YOUR MAC  
ON VACATION  
**WIN A  
SURFBOARD**


### REVIEWED:

DVD Studio Pro 1.5, Kensington StudioMouse, iRock 530 MP3 Player,  
Medal of Honor: Allied Assault, Epson Stylus Photo 2200,  
Sony Noise-Cancelling Earbuds, and more...

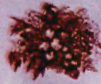


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YOUR VISION





# Shopping List



## Household Articles

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SOAP ✓

TOILET PAPER ✓

## Meats and Poultry

CHICKEN WINGS

~~BACON~~

ROAST BEEF ✓

## Fruits and Vegetables

POTATOES ✓

CARROTS ✓

WATERMELON ✓

## Desserts

COOKIES ✓

ICE CREAM ✓

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## FEATURES

### COVER STORY

# 101 Tips

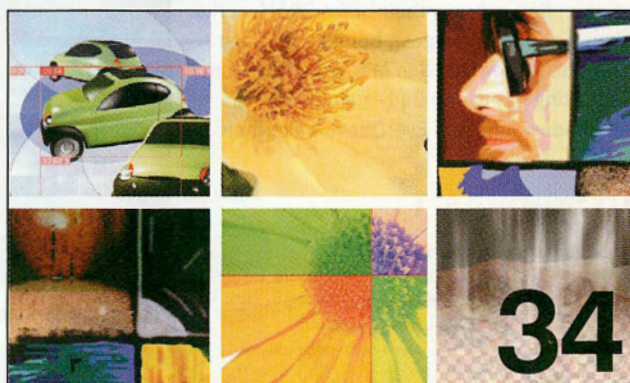
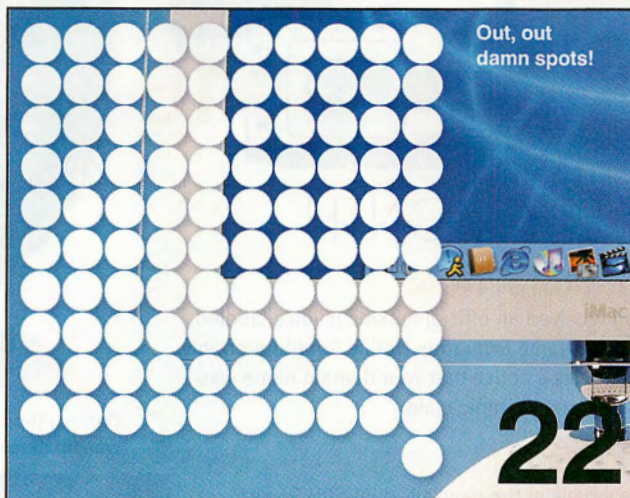
Get expert advice about everything Mac: oh-so-useful key commands, the best streaming-radio stations, Microsoft Office power-user tips, stress-reducing ergonomics—we provide pointers up the wazoo to enhance your Mac life.

by David Schloss

# 34 Graphics Apps Galore

Photoshop, Illustrator, FreeHand, and Quark aren't the only graphics games in town. Find the application that best suits your skill level, creative interests, and wallet thickness.

by Narasu Rebbapragada



That flower's blocking my view of that car.



Eek! A mouse!

## HOW TO

### 60 Ask Us

Mac OS X questions continue to pour in. This month we return the OS X Apple Menu to its former OS 9 glory, *slow down the Genie Effect*, and tell you which flavor of DSL you really need.

by Buz Zoller

### 62 Create a Music Video with iMovie

Creating videos of baby's first tooth is endearing and all, but how exciting is it, really? Why not crank up your hip quotient and create an iMovie music video? It's easy. Really.

by Jason Whong

### 66 Find What You Need on the Web

Sometimes searching the Web is like trying to find your car in a 1,000-acre Wal-Mart parking lot. We show you how to find exactly what you want on the first try.

by Jason Ditzian

### 69 Burn a Multisession CD for Your PC Pals

If you burn a multisession CD to share stuff with your PC-encumbered friends, they won't be able to access most of your files—unless you follow our advice.

by Debra Shadovitz

OCTOBER 2002  
NO. 74 • VOLUME 7 • ISSUE 10

#### ON THE COVER



Photo courtesy of Apple Computer



We inspected—nope, still no talent.



I'll show you mine if you show me yours.



I'll take that and a large popcorn.



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## EVERY MONTH

### 8 Editors' Note

If you received an official-looking invoice labeled "Domain Name Expiration Notice," you'd probably think it was a notice that your domain name was expiring, right? Think again.

### 10 Get Info

Take a peek at the new, all-dual-CPU Power Macs, then find out how their DDR SDRAM works. Also, read about the biggest, boldest, baddest Mac products showcased at Mac Expo New York. And speaking of big and bad—games, in this case—Shadowbane and EverQuest make their way to the Mac.

### 41 Reviews

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- 55 SyncMaster 765MB 17-inch CRT monitor
- 46 Toshiba PDR-3300 3.2-megapixel camera

### 56 The Hot List

The best of the best from recent reviews. If the editors of MacAddict went shopping, this is what we'd buy.

### 94 Log Out

#### 94 Letters

Readers speak out on MacAddict's redesign and our precocious mascot, Max. They talk about Mac OS X bugs and bikini-clad lovelies, and make our dream machines even dreamier.

#### 95 Win a Surfboard

Surf's up for The Sims—and possibly for you. Enter The Sims Vacation Summer Surfin' Contest to win a 6-foot, 3-inch surfboard from Seek Surfboards, complete with a custom Aspyr paint job.

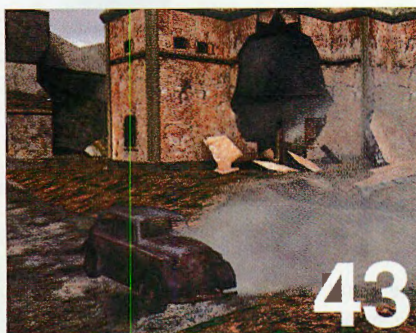
#### 96 Shut Down

When Apple didn't upgrade the Power Mac and PowerBook lines at the recent NY Mac Expo, Angus Pàidean and Max snuck into Apple's product-development labs to find out why.



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Damn. I thought that Super Glue was lip gloss.



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Paris in the springtime? No, France in the 40s.



Meet our new favorite printer.

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This iMac hangs X.

# QUICKIES

Instant tips from this month's issue.

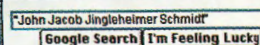
### Move files, don't just copy them.

If you hold down the Command key while you drag a file from one volume to another, you'll move that file to the new drive and remove it from the old. From "101 Tips," p22.



### Find folks fast on the Web.

If you're searching for information about a particular person, put his or her full name in quotations and the search engine will return only hits that contain the exact name. From "How to Find What You Need on the Web," p66.



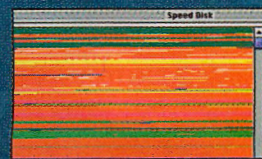
### Balance your uploads and downloads.

If you upload as much data as you download from the Web, skip the more-common ADSL and find an ISP that can provide you with SDSL. From "Ask Us," p60.



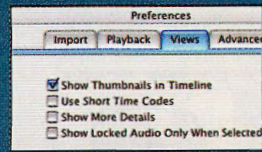
### Defragment your drive before video editing.

Before you import DV footage to your Mac for video editing, defrag your hard drive to optimize free disk space. From "How to Create a Music Video with iMovie," p62.



### Edit iMovie with precision.

To perform precision editing in iMovie, in the Views tab of the Preferences pane, uncheck Use Short Time Codes, and you can edit clips to the millisecond. From "How to Create a Music Video with iMovie," p62.



### Force your Mac to boot in OS X.

Hold down the X key when you boot up until you hear the second chime and see the happy Mac icon to make your newer Mac boot in OS X, even if you've set OS 9 as the startup disk. From "101 Tips," p22.



stretch your imagination



## The CRW-F1 With Exclusive DiscT@2 Technology

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With its innovative design, Yamaha's all new CRW-F1 compliments the style and appeal of any contemporary Mac. Engineered for easy connectivity via FireWire, SCSI and USB 2.0, the CRW-F1 delivers reliable performance, high quality and top speed CD recording with whisper quiet operation.

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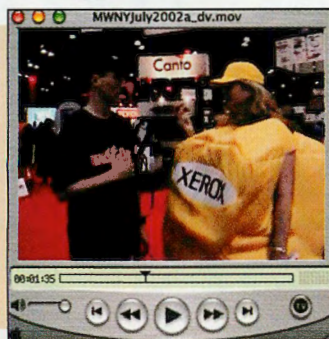


# YAMAHA



# THE DISC

55 apps that'll amuse you, make you more productive, and grow hair on your chest (if you like that sort of thing).



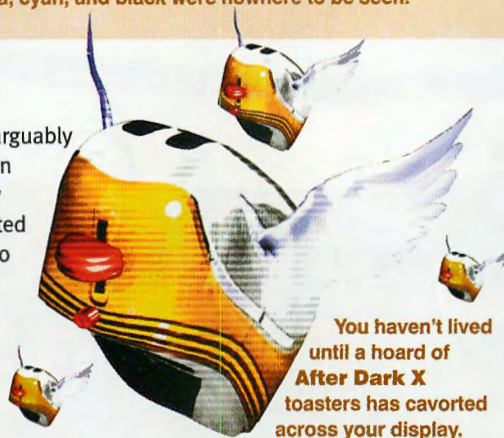
## The MacAddict Army New York 2002

When the all-volunteer MacAddict Army invaded this summer's New York Mac Expo, its prime directive was not merely to uncover the hottest new products. In this month's staff video, watch as these intrepid soldiers of technology stalk the rare and awe-inspiring *MacAddictus Spasmodicus*.

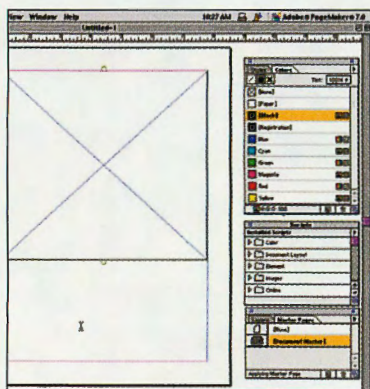
We found Xerox's yellow solid-ink mascot on the Expo floor, but magenta, cyan, and black were nowhere to be seen.

## After Dark X

The Flying Toasters are back! After Dark—arguably the most famous (and most pirated) screen saver of all time—is here for OS X. Preview demos of updated versions of its time-tested eye candy, then pony up \$20 if you want to retrofit your futuristically Aquatic OS.



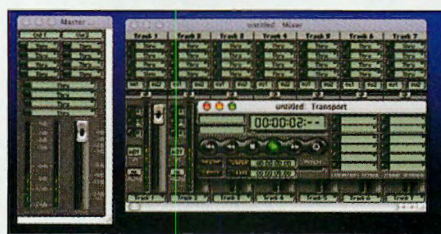
You haven't lived until a hoard of After Dark X toasters has cavorted across your display.



Unless you're publishing a magazine as sophisticated as, say, *MacAddict*, **PageMaker** will meet your needs.

## Deck 3.5 Trial

Digital audio (finally) comes to OS X! This full-featured multitrack app is now bona fide OS X compatible, and allows you to record and process up to 64 simultaneous tracks (999 virtual tracks) without any audio hardware.



**Deck 3.5** has all you need to produce audio for video and film, including mixing to stereo or 5.1 surround sound.

## 10 Top Graphics Apps

In this month's "Graphics Apps Galore" (p34), we show you the ins and outs of 25 graphics apps. On this month's Disc, we give you trial, demo, and full versions of 10 of the top contenders.

Canvas 8 trial  
FreeHand 10 trial  
GraphicConverter 4.4.3  
Illustrator 10 tryout  
InDesign 2.0 trial  
PageMaker 7.0.1 tryout  
PhotoStudio 4.0 trial  
PixelNance 1.5.9  
Stone Studio trial  
TIFfany 3.5.6 trial

## MacAddict

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# How Much Is Enough?

I'm a lucky guy: My wife—the Lovely and Talented Marilyn—handles all the financial chores at cozy Chez Polonoise, as we call our San Francisco home. I'm also lucky that she's smarter than me—smart enough to know that I should just have typed “smarter than I.”

A few weeks back, I received an official-looking invoice with a stern headline: “Domain Name Expiration Notice.” Like many a nerd, I own a number of domain names; I assumed this invoice to be a renewal bill from one of their registrars. Onto the to-be-paid pile it went. Marilyn would take care of it.

A few days went by. While I was attending to some menial household chore not requiring

current registrar to a different registrar. Read the fine print.”

Of course, she was right. In print significantly smaller than the “Expiration Notice” headline, the form instructed me to “sign the form to authorize payment and transfer to VeriSign.”

VeriSign was trying to pull a fast one on me—to make me think I was just renewing my regular service when in reality I was transferring my business to VeriSign. And the play had nearly succeeded. Only my sharp-eyed spouse had prevented me from falling for the ruse.

VeriSign. The name rang a bell, but I couldn't quite place it. Its logo looked—and its name sounded—quite a bit like that of telecommunications giant Verizon. (“Are they trying to piggyback on Verizon's authority?” asked Marilyn.) Then I remembered: VeriSign is the megabig Internet security and verification services company that gobbled up Network Solutions back in 2000.

A trip to its Web site told me how big it is. Plenty big. Over 3,000 employees. A market capitalization of around \$2 billion.

So why did VeriSign use such a cheap-ass trick to try to squeeze a measly 29 bucks a year out of a poor schlub like me? It couldn't be, uh,



Editor in chief Rik Myslewski has definitely had enough.

greed, could it? It couldn't be that some people will do anything for a buck, hmm? Not people from a company whose motto is “The Value of Trust.” Heaven forbid, no!

Oh, yes, it could—and VeriSign is not alone. In money matters both tiny and titanic, corporate types are using self-serving justifications such as “enhancing shareholder value” to increasingly overstep legitimate business tactics. In boardrooms all over America, they're squeezing a nickel out of every dime, and people are asking fewer questions about where that damn dime came from in the first place. When is the first CFO going to stare down his or her boss and simply ask, “How much is enough?”—Rik Myslewski

## Some people will do anything for a buck.

the brainpower necessary to manage family finances—grouting, perhaps—Marilyn interrupted. “Did you read this?” she asked, holding up the aforementioned “Domain Name Expiration Notice.”

“Sure,” said I. “It's a bill to renew one of my domains.”

“No, it's not,” said the smarter of the two of us. “It's to transfer your domain from your

## STAFF RANTS

**Q1:** Has a company ever tried to rip you off?  
**Q2:** Did it succeed?

**Narasu Rebbapragada**  
Gullibler

**Has a company ever tried to rip you off?**

No one's ever tried to rip me off. No way. No how.

**Did it succeed?**

Guess that means it succeeded.



**Cathy Lu**  
Terminally Panicked

**Has a company ever tried to rip you off?**

Recently, my vet's office charged me \$50 to clip my cats' claws. Then there was that incident with Blue Cross/Blue Shield. Oh, and there was that nasty French waiter. Wait a sec—who *hasn't* tried to rip me off?

**Did it succeed?**

They've succeeded—for now. But once my cats' claws grow back, watch out!



**Jenifer Morgan**  
Saucy Sucker

**Has a company ever tried to rip you off?**

Naively, I pulled a cleverly unpriced jar of pasta sauce from a display in a posh grocery, thinking it Ragù.

**Did it succeed?**

When \$11 flashed on the register, I whimpered like a cornered dog, but the backed-up line of impatient shoppers broke my will to protest.



**Leslie Osborn**  
Recently Renamed

**Has a company ever tried to rip you off?**

Every company involved with my wedding. “It will cost more because it's on a Saturday.” “Your dress is *bone*, not ivory, so it's extra.”

**Did it succeed?**

My powers of ultrapersuasion (and generally behaving cutely) brought some folks over to my (cheap) way of thinking.



**Niko Coucouvanis**  
Smart Feller

**Has a company ever tried to rip you off?**

Never happened. Unless the IRS counts as a company—using my tax dollars to blow up Iraqi water plants seems like a gyp to me.

**Did it succeed?**

In the heat of the moment, I “forgot” to pay my taxes—but since I just let that out of the bag, I guess I'd better pay up. The man wins again.



**Kris Fong**  
Jabberjaw

**Has a company ever tried to rip you off?**

MCI told me it'd start charging me a “convenience fee” to continue to have my MCI long-distance bill tagged onto my local phone bill—but if I agreed to have MCI send me a separate bill, I'd save a buck a month.

**Did it succeed?**

Since my MCI charges were never more than 5 cents each month (I use my cell), I had the company bill me separately. MCI now pays me 95 cents every month.



**Chris Imlay**  
Automatic Caller

**Has a company ever tried to rip you off?**

Last night, there were 12 voice-mail messages waiting for me after work. All of them were hang-ups. The next call was a telemarketer (the same, I presume, whose computer called me 70 or so times last week) who just wanted to ask me “a few questions” about my phone bill.

**Did it succeed?**

I was set back by its initial attacks, but I'm sure my, uh, warm responses to the “few questions” will prevent further invasions.



**Max**  
Sensei of Sass

**Has a company ever tried to rip you off?**

Last summer, Schering-Plough HealthCare Products. Bought buckets of Coppertone. Dipped my head in it repeatedly. Didn't make a damn bit of difference.

**Did it succeed?**

Gotta admit that company treated me fairly. Traded it for a lifetime supply of Bain de Soleil SPF35 Oil-Free Protector hydrating lotion. Works great on hyper-Caucasians such as yours truly.





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# THE LAZY DAYS OF SUMMER EXPO

Eclipse TD:  
speakers or alien  
homing beacons?



## Mac Gizmos Meet Mac Users in New York

**S**ubdued and sultry: These two words sum up the climate at this summer's Mac Expo 2002 in New York City, attended by more than 58,000 Mac fans and 250 vendors.

While attendance was down from the 64,000 attendees and about 300 vendors last year, enthusiasm and sales ran high, with some vendors even running out of products. We sniffed our way around the show floor to bring you the best of what was out there.

### VIDEO

With more Macs than personal assistants on Hollywood's movie sets, it's no wonder that cool video products made their way to the Expo floor. Discreet announced the new Mac version of its video-compression software (formerly known as Media 100), **Cleaner 6** (\$599, [www.discreet.com](http://www.discreet.com)). Cleaner 6 now works natively in Mac OS X, runs faster, batch-processes video easily with the new Watch Folder, and supports MPEG-4 streaming video. It will be available in fall 2002.

The QuickTime pavilion housed creative new products, not the least of which was **Kinoma Player and Producer** (\$29.99, [www.kinoma.com](http://www.kinoma.com)). Kinoma Producer translates QuickTime-playable video and stills to a format viewable on a Palm-based handheld with the freely downloadable Kinoma Player.

Beware the Creature  
from the Eep.



MCE Technologies unveiled the **QuickStream DV** (\$499 to \$799, [www.mctech.com](http://www.mctech.com)), a hard drive that (depending on the model) records and encodes 1.5, 3, or 4.5 hours of video on the fly when hooked up to your camera. It will be available in September 2002.



Catch the QuickStream  
DV recording wave.

If you're still wedded to analog video, ADS Technologies' **USB Instant DVD** (\$449, [www.adstech.com](http://www.adstech.com)) captures video from any analog source and converts it to MPEG-1, MPEG-2, or VCD format; you can then export the footage to DVD or CD-R media. ADS expects to ship the device in October 2002.

Expo attendees mobbed El Gato Software's booth, gawking at its brand-new **EyeTV** (\$199, [www.elgato.com](http://www.elgato.com)), a TV tuner and recorder that works exclusively in Mac OS X.

### HARDWARE

Speakers got the funk with great sound and unusual style. Harmon Multimedia unleashed the **JBL Creature** speaker-subwoofer set (\$129.95, [www.harman-multimedia.com](http://www.harman-multimedia.com)), available in gray, white, and blue. Fujitsu Ten's **Eclipse TD** (£1,175, or about \$1,839; [www.eclipse-td.com](http://www.eclipse-td.com)) speakers with volume

control, are engineered to give you precise (not loud) sound. They should be available in the United States at Drum Machine Museum ([www.drummachine.com](http://www.drummachine.com)) by the time you read this.

For the hippest in laptop stands, Griffin Technology's **iCurve** (\$39.99, [www.griffintech.com](http://www.griffintech.com)) brings your TiBook screen level with your Apple Cinema Display in an elegant polycarbonate swoosh.

### PRODUCTIVITY

Turn a new leaf this fiscal year with Intuit's **Quicken 2003** (\$59.95, [www.intuit.com](http://www.intuit.com)), which has a new Aqua look; scheduled updates from your online accounts; and a streamlined single window for viewing bank, credit-card, and investment transactions. Micromat's **TechTool Pro 3.0.7** (\$97.98, [www.micromat.com](http://www.micromat.com)) solves all sorts of disk-related problems in Mac OS X and earlier (though it doesn't let you boot up in X), and it "re blessed" one editor's PowerBook during a particularly ill-timed crash.

If you like to accessorize, check out **Xpression** (\$24.95 trial, [www.freeverse.com](http://www.freeverse.com)), which lets you choose from 20 to 30 Theme templates to customize your Mac OS X icons and desktop. Xpression will be available after the Jaguar release (Mac OS 10.2), and more themes will be available at [www.freeverse.com/xpression.mgi](http://www.freeverse.com/xpression.mgi).

Also on the X expedition, Aladdin Systems' **Ten for X** suite (\$49.99, [www.aladdinsys.com](http://www.aladdinsys.com)) features shareware favorites such as Unsanity FruitMenu for enhancing the Apple menu and contextual menus; LimeWire, the Gnutella peer-to-peer file-sharing client; and Brian Hill's Pseudo, which allows root access without making you dig into Terminal. Aladdin also



announced a new version of **StuffIt Deluxe** (\$79.95) for Mac OS 8.6 and up, with improved compression, at summer's end.

Jobs wants the Switchers so badly that he gave Detto Technologies six weeks to concoct a PC-to-Mac file-swapping solution. Through a USB-to-USB transfer, **Move2Mac** (\$59.95, [www.detto.com](http://www.detto.com)) lets PC users transfer files, preferences, and media (no apps—that would be illegal) from a PC to the appropriate place on the Mac. The USB package will be available this fall, and Detto says it's working on an Ethernet transfer solution.

## SERVICES AND DEVELOPERS

Metrowerks showed off **CodeWarrior 8 Professional Edition** (\$599, [www.metrowerks.com](http://www.metrowerks.com)) with Cocoa support, code completion for better productivity, and new debugger features (like a guided view and variable format). **CodeWarrior 3 Learning Edition** (\$79) gives you similar tools along with Cocoa programming, but has a 32-file limitation and lacks cross-platform development capabilities.

For Web folks, 4D announced the native Mac OS X version of its **4D Business Kit** (\$500, [www.4d.com](http://www.4d.com)) for creating ecommerce sites, and said its **4D Mail Server**

Picking up where the now-defunct Adobe PhotoDeluxe left off, Roxio's **PhotoSuite** (\$29, [www.roxio.com](http://www.roxio.com)) lets you import and browse digital pictures, audio, and video clips. If you have Roxio's Toast, you can then burn these files to CD.

**You'll want to feel these iCurves.**



Carrara's modeling tools give your dog a bone.

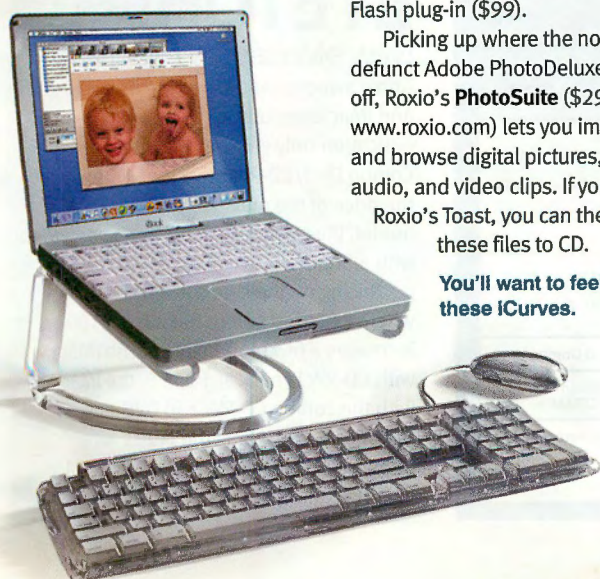
(\$149 for ten mailboxes to \$1,499 for unlimited mailboxes) with antispam, antivirus, and Web-mail features should be available in September 2002.

## GRAPHICS AND 3D

Although graphic giants Adobe and Macromedia were no-shows this year, Alias|Wavefront came to bat with **Maya 4.5** (\$1,999, [www.aliaswavefront.com](http://www.aliaswavefront.com)), which finally brings the Mac OS X application up-to-date with the versions available on other platforms and includes new modeling tools, integrated 3D Paint, and multiprocessor support. Maya 4.5 should be available in September 2002.

2D graphic designers in search of less intimidating (and less expensive) 3D tools can look to Eovia's **Carrara Studio 2** (\$400, [www.eovia.com](http://www.eovia.com)) for easy bone modeling, multiprocessor support, and the Vectorstyle Flash plug-in (\$99).

Picking up where the now-defunct Adobe PhotoDeluxe left off, Roxio's **PhotoSuite** (\$29, [www.roxio.com](http://www.roxio.com)) lets you import and browse digital pictures, audio, and video clips. If you have Roxio's Toast, you can then burn these files to CD.



PhotoSuite also comes with basic editing, effects, and text features.

## MUSIC

Apple's iPod continues to inspire the creation of tech toys like Griffin Technology's **FM transmitter** (\$35, [www.griffintechnology.com](http://www.griffintechnology.com)), which pops onto your iPod's top. Griffin also tempted us with a shark fin-style prototype of a Mac FM receiver that receives and



With Sonica, your Mac offers surround sound.

records radio and streaming audio. Look for the finished product by the end of the year.

Perhaps the most exciting audio toy we saw was M-Audio's **Sonica** (\$89.99, [.net\), a little blue USB box that brings surround sound to your Mac by converting DVD audio to optical digital audio, which you can then output through any Dolby Digital-supported receiver. For more music news, see "X-Rated Sounds," p18.](http://www.midman</a></p>
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## SCIENCE AND TECHNOLOGY

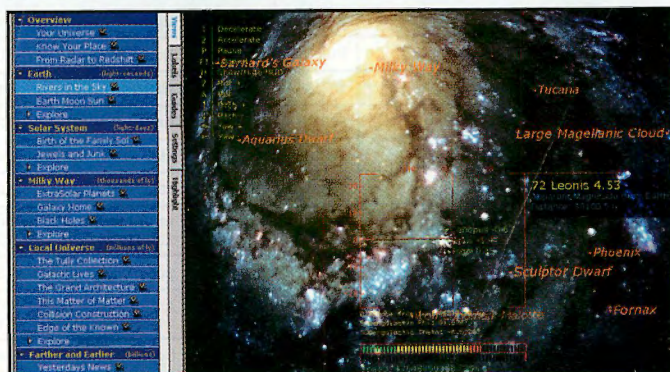
It's Macs in space with Space Holdings' **Deep Space Explorer** (\$59.95, [www.starrynight.com](http://www.starrynight.com)). With data from the Hubble Telescope and astronomer Brent Tully's database of 30,000 galaxies, jet into space and view stars, moons, and planets from different angles and distances.

Right here on Earth, The MathWorks' **Matlab 13** (\$1,900, [www.themathworks.com](http://www.themathworks.com)) is back on the Mac—and only for Mac OS X. This mathematical program for data computation, analysis, and visualization should be available by the time you read this.

## KIDZ STUFF

And finally—for the kiddies, Kreative Komix's **Comic Book Maker** (\$29.95, [www.kreativekomix.com](http://www.kreativekomix.com)) lets you make your own print or slide-show cartoons. Kids choose the comic's backdrop, characters, and scene layouts. They can then type the story into thought bubbles, choose a voice to speak the lines, or record their own voices.

—Narasu Rebbapragada



Deep Space Explorer brings a galaxy far, far away very, very close.



# THE NEW TOWERS

Xserve Technology Moves to the Desktop

Double your pleasure; double your fun. Apple packed its entire Power Mac G4 lineup with dual processors and introduced a brand-new 1.25GHz dualie with a total of 4MB of backside level 3 cache. The new machines have a host of other power-ups, too, including a system bus boost from 133MHz to 167MHz in all but the lowest-end model.



## DOUBLE THE DATA RATE

Apple has added Double Data Rate (DDR) SDRAM to the new Power Macs, and you can stuff up to 2GB of RAM (up from the previous 1.5GB maximum) into a machine. DDR SDRAM passes data at a much faster rate than standard SDRAM. See "Inside DDR SDRAM," p13, for more information.

## DOUBLE-DOUBLE THE DRIVE BAYS

The new Power Macs can support up to four internal ATA drives—two at Ultra ATA/100 and two at Ultra ATA/66—for nearly one-half terabyte of hard disk storage. You can even get a built-to-order set of four 72GB, Ultra 160 SCSI drives (which run at 10,000 RPM), if speed is more important to you than total drive capacity.

## DOUBLE THE OPTICAL DRIVES

Why settle for one optical drive, when you can have two? Apple gives you the option of installing a Combo DVD/CD-RW drive along with a SuperDrive for DVD burning. Oh, and they're faster than on previous G4s. The SuperDrive now reads DVDs at 6X (instead of 4X), and the new Combo DVD/CD-RW drive writes CD-R at 16X (instead of 12X) and writes CD-RW at 10X (instead of 8X).

## DOUBLE DISPLAYS

Dual display capabilities were previously available only on

With loads of DDR memory (left), four hard drive bays, and two optical drives (below, left), McDonalds isn't the only outfit with a Big Mac on the menu.



PHOTOGRAPHY COURTESY OF APPLE COMPUTER

high-end Macs. Now, all new G4 Power Macs support two monitors with ADC and DVI ports standard across the line. Even the cheapest Power Mac sports the nVidia GeForce4 MX with 32MB DDR SDRAM. In the mid-level and high-end models, Apple put ATI back in the running by using the ATI Radeon 9000 Pro with 64MB DDR SDRAM. You can max out your system with the nVidia GeForce4 Titanium with 128MB of DDR SDRAM.

## SPEC SHEET

Here are the basic configurations for the new Power Macs. Notice the granddaddy of built-to-order dream machines.

	Good	Better	Best	Whoa!
<b>Processor</b>	Dual 867MHz	Dual 1GHz	Dual 1.25GHz	Dual 1.25GHz
<b>System Bus</b>	133MHz	167MHz	167MHz	167MHz
<b>DDR SDRAM</b>	256MB	256MB	512MB	2GB
<b>L3 Cache</b>	2MB	2MB	4MB	4MB
<b>L2 Cache</b>	256K	256K	256K	256K
<b>Hard Drive</b>	60GB Ultra ATA/100 7,200 RPM	80GB Ultra ATA/100 7,200 RPM	120GB Ultra ATA/100 7,200 RPM	Four 72GB Ultra 160 SCSI drives
<b>Optical Drive</b>	Combo drive	SuperDrive	SuperDrive	SuperDrive and Combo drive
<b>Video Card</b>	GeForce 4 MX 32MB DDR SDRAM	ATI Radeon 9000 Pro 64MB DDR SDRAM	ATI Radeon 9000 Pro 64MB DDR SDRAM	GeForce 4 Titanium 128MB DDR SDRAM
<b>Bells and Whistles</b>	None	None	None	Apple Pro Speakers, .Mac, AirPort Card
<b>Price</b>	\$1,699.00	\$2,499.00	\$3,299.00	\$8,906.95

## EIEIOH!

New eMacs and iMacs

Apple sweetened the deal on its eMac and iMac computers. The previously education-only eMac now comes with a Combo DVD/CD-RW drive for \$1,099. That's the price of the previously CD-RW-only model. Plus, Apple is now offering an eMac with a SuperDrive for \$1,499.

Pricing on the iMacs is now back to where it started before the nasty \$100 increases a few months back. The iMac with CD-RW is back at \$1,299, the iMac with the combo CD-RW and DVD drive is back at \$1,499, while the iMacs with SuperDrives remain at \$1,799 for the 15-inch LCD and \$1,999 for the 17-inch LCD.



# INSIDE DDR SDRAM

## Faster Memory for Your Mac

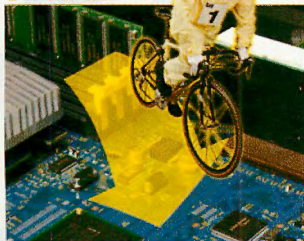
Apple's new Power Macs (see p12) give consumers their first hands-on experience with a faster type of memory called double data rate (DDR) SDRAM, which reads and writes data twice as fast as the single data rate SDRAM (synchronous dynamic random access

memory) that we're used to. We talked to Brandon Guthrie, senior technical analyst at Crucial Technology, a division of Micron Semiconductor Products, to find out how DDR SDRAM works and why it's almost as good as it sounds.—Narasu Rebbapragada

### HOW DATA MOVES

The front side bus is the main channel that carries data between your Mac's CPU and the system controller. The front side bus on the New Power Macs transfers data at speeds up to 167MHz.

### STANDARD SDRAM



### CLOCK CYCLES

Here's why DDR SDRAM moves really fast. Commands, addresses, and data move between the memory module and the system controller within clock cycles. Standard SDRAM synchronizes the clock cycles of the bus and of the memory to transmit one bit of data (per data pin) in a single cycle. DDR SDRAM splits the clock cycle into two half-cycles—one on the rise of the clock and the second on its fall. As a result, two bits of data can catch a ride per clock cycle, effectively doubling the data rate. In a perfect world, doubling the data rate would double your memory speed. In the real world, that's not quite the case.

### ALMOST TWICE AS FAST

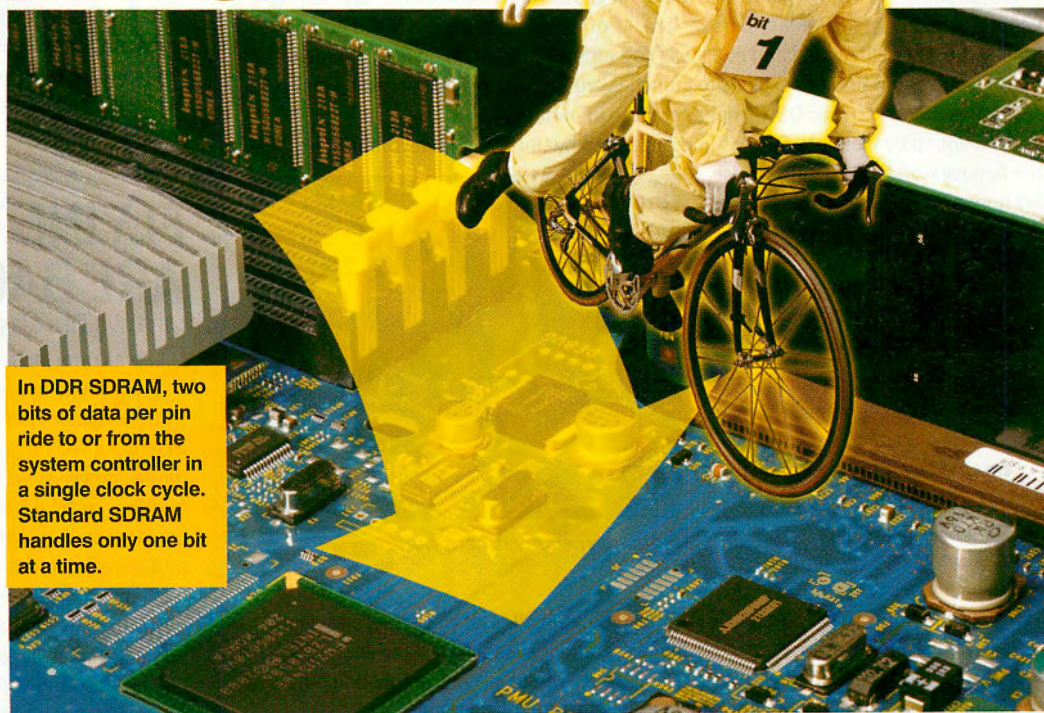
There are two reasons why DDR SDRAM modules are faster, but not twice as fast, as comparable SDRAM modules. The first reason is the set of timings that prepares to transmit data to and from the memory module. These timings don't execute twice as fast as with standard SDRAM. The other reason is that since the front side bus on the CPU only operates at 167MHz, even if the data is moving at 333MHz within the DDR SDRAM, it slows down to 167MHz once it hits the CPU. Apple says that the new Power Macs direct memory access (DMA) channels speed up the process. DMA allows hardware devices to send instructions directly to and from the memory without involving the CPU.

### PINS

Right now only the Xserve and the new Power Macs can take DDR SDRAM modules. You won't be able to fit a DDR SDRAM module in any other Mac's SDRAM slot. On the edge of the circuit board, DDR SDRAM (see right) has 184 pins and one notch. SDRAM, on the other hand, has 168 pins and two notches.



## DDR SDRAM



In DDR SDRAM, two bits of data per pin ride to or from the system controller in a single clock cycle. Standard SDRAM handles only one bit at a time.

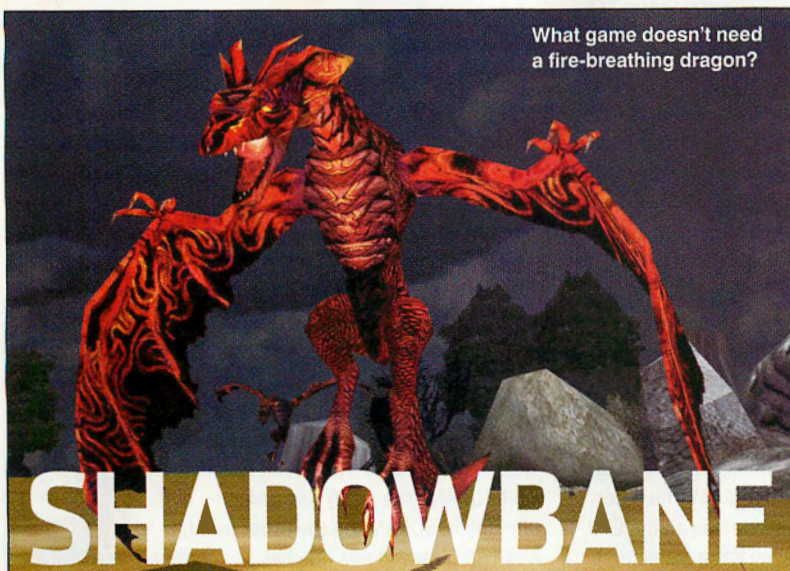
### DOING THE MATH

Here's how DDR SDRAM achieves a theoretical 2.7-Gbps bandwidth.

- 1 Bits per clock cycle,
- 2 Multiplied by the number of clock cycles per second on the system bus stated in megahertz,
- 3 Multiplied by the number of clock cycles in one megahertz,
- 4 Multiplied by the number of data paths in the system bus,
- 5 Divided by the number of bits in a byte,
- 6 Divided by the number of bytes in a gigabyte,
- 7 Equals the theoretical bandwidth of the DDR SDRAM measured in gigabytes per second.

$$((2 \times (167 \times 1,000,000) \times 64) / 8) / 1,000,000,000 = 2.67268 \text{ per second}$$





What game doesn't need a fire-breathing dragon?

# SHADOWBANE SEES THE LIGHT

The Long-Awaited MMO Makes Its Way to the Mac

Shadowbane is here, and this latest sensation in massively multiplayer online (MMO) games is Mac right down to its core.

Don't feel bad if you haven't heard of Shadowbane or MMO (game geeks, cease your snickering). The MMO genre is made up of giant, multiplayer, online role-playing games (generally of the fantasy persuasion). MMO is less prevalent in North America than in the rest of the world and even less common on Macs than on PCs, although Sony Online Entertainment expects to launch Everquest on the Mac next spring (see "Everquest Comes to Mac OS X," right, for more information).

Developed by Wolfpack Studios and published by Ubi Soft, Shadowbane starts in the fantasy world of Aerynth, whose fall from prosperity resembles the fall of Rome. With feuds brewing and ancient evils bubbling, you join a city to fight foes and create alliances. In the midst of it all is a mythical sword called Shadowbane. In the style of *Lord of the Rings*, the power of Shadowbane can either save the world or destroy it.

First, you choose your character. With 10 races and 20 character promotion classes, there are hundreds of character combos. Next, you join a city.

After that, how you play up to you. The 13 different guilds let you wheel and deal your way into running an economy, raising taxes, and inevitably watching your back. If combat is your thing, Shadowbane has real player-versus-player combat and potent spells. And don't forget to take the time to enjoy the top-notch graphics.



It's no wonder the graphics are good: The developers are Mac fans and pushed for a Mac build from the beginning. Tobias Ford, senior software engineer at Wolfpack Studios tells us that the entire core engine—for the game and the main graphics—is the same for both PCs and Macs.

For more information, check out Shadowbane's site at <http://shadowbane.ubisoft.com>. The game should launch by the time you read this; pricing isn't available yet. —NR

Killing the Kurad (guard) sure is pretty.



Fighting spectres is hard work.

# EVERQUEST COMES TO MAC OS X

More MMO for the Mac

Gamers cheer and family members fear the news that Sony Online Entertainment is bringing the popular massively multiplayer online game EverQuest (<http://everquest.station.sony.com>) to Mac OS X in spring 2003.

EverQuest, affectionately called "Evercrack," has trapped hundreds of thousands of people worldwide in its fantasy world. Mac users will be able to buy EverQuest as well as popular expansion packs, including The Shadows of Luclin, The Ruins of Kunark, and The Scars of Velious. The current subscription price is \$12.95 per month. For more info, check Sony Online Entertainment's gaming Web site, The Station ([www.thestation.com](http://www.thestation.com)). —NR



This arm is grrrrea

# FLYING TOASTERS ARE BACK

Infinisys Revives After Dark Screensavers

A welcome blast from the past, After Dark is back. For those who don't remember, Berkeley Systems published the original line of screensavers like Flying Toaster and Starry Night. Later developers made screensavers with themes like Homer Simpson and the Grateful Dead. In 1997, a software conglomerate called CUC bought Berkeley Systems and decided not to update After Dark for Mac OS 9—leaving After Dark, well, in the dark.

Until now. A Japanese software company called Infinisys has revived the old favorite for Mac OS X. Called After Dark X (\$20, <http://en.infinisys.co.jp>), the new version comes with eight screensavers, including Space Toasters X and Starry Night. OpenGL powers the graphics. The software is a little buggy right now, but we're hoping that Infinisys will shake the crumbs out of these new toasters. —RM



Is that toaster flying or am I?



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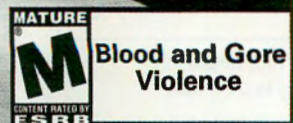


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## DROOLWORTHY

Sexy Stuff We Can't Wait to Get Our Mitts On

Now this  
camera thinks  
different.



## PDR-T10

Toshiba America [www.toshiba.com](http://www.toshiba.com) \$299.99

You so-good, two-faced, slippery sack of pics! This slick silver 2-megapixel camera not only holds an SD card and a touchscreen LCD, but also comes with a pack of four interchangeable faceplates for an extra \$29. Swap out zebra stripes, small stars, flowers, and retro stripes. You'll also get a 4x digital zoom, six white-balance settings, auto and manual focus, four flash modes, and USB support.—KF

PHOTOGRAPH BY MARK MADEO

## GL2 DV Camcorder

Canon [www.canondv.com](http://www.canondv.com) \$2,999

The GL2 DV Camcorder turns your video of the zoo into an episode of *Wild America* with three 410,000-pixel CCDs, a 20x professional L-Series fluorite optical zoom, and a 100x digital zoom. This all-in-one camera gives you quality similar to that of Canon's professional (and expensive) XL1s camera, minus the modularity for attaching extra lenses, flashes, and viewfinders. The GL2 DV also lets you shoot 1.7-megapixel digital stills to SD and MMC cards.—NR

Gee, your video looks terrific.



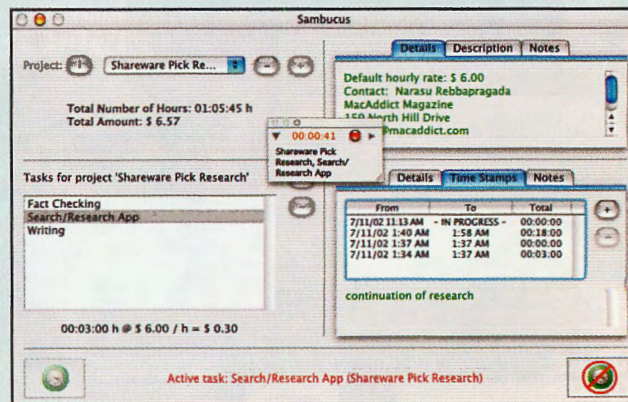
PHOTOGRAPH COURTESY OF CANON

## SHAREWARE PICK OF THE MONTH

### SAMBUCUS

Logiciels Malus [www3.sympatico.ca/fuzzies/index.html](http://www3.sympatico.ca/fuzzies/index.html) \$20

If your favorite words are "billable hours," Logiciels Malus Software's Sambucus sings your tune. This intuitive utility for Mac OS 8 and higher tracks the time you spend working on one or more projects. Simply launch Sambucus and enter basic info like project name, hourly rate, and client. Then click the green widget in the floating window to start tracking time. You can track a project's different tasks (which you define), link documents to those tasks, and print out project reports or export information to a spreadsheet or database. Sambucus is simple, useful, and affordable, and you'll find a 30-day trial on the Disc.—Andrew Tokuda



A freelancer's dream and a client's worst nightmare: Sambucus lets you track and bill for every last minute you spend working on a project.



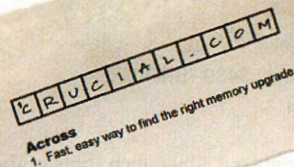


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# Upgrading your memory doesn't have to be complicated.



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# \$49<sup>49</sup>

## 256MB PC100 SDRAM for today's most popular systems

**Prices reflect an automatic 10% discount for ordering online.** Prices may vary according to specific system requirements. The price listed was valid on 7/29/02 when we sent this ad to the publisher; however, prices may have dramatically increased or decreased since then. Visit the FAQ section of [Crucial.com](http://Crucial.com) to learn more about why memory prices go up and down.

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# SNAPSHOTS ON THE GO

Mac Not Required

You don't need your Mac to print digital pictures anymore. Check out these digital photo printers, which are small enough to fit right in your camera bag.—*Keelin Devincenzi*

## Canon Card Photo Printer CP-100

Canon, [www.canon.com](http://www.canon.com), \$238 (SRP)

Resolution: 300 by 300 dpi

Available: Now (computer connection kit available fall 2002)

This little 2.2-pound printer works only with Canon PowerShot cameras. It lets you print full-bleed or bordered prints and offers four print sizes. A 4-by-6-inch photo at 300-by-300-dpi takes about 81 seconds to print, and the CP-100 coats each print with a clear, sun-protective coating. If you're the photo-editing type, an optional computer connection kit with driver software and a USB cable allows you to print images from your Mac's hard drive.



## HP Photosmart 130

Hewlett-Packard, [www.hp.com](http://www.hp.com), \$179.99 (SRP)

Resolution: Up to 2,400 by 1,200 dpi

Available: August 2002

You can print color 4-by-6-inch prints with this almost 3-pound heavyweight. Simply remove the CompactFlash, SmartMedia, or Sony Memory Stick memory card from your camera and place it inside the

Photosmart 130. It's slow at almost 3 minutes for a 4-by-6-inch print, but it can produce high-quality, 2,400-by-1,200-dpi prints (color photos only). The Photosmart also connects to your Mac via USB.



## Olympus P-200

Olympus, [www.olympus.com](http://www.olympus.com), \$439 (SRP)

Resolution: 320 by 320 dpi

Available: Now

The pricey Olympus P-200 prints out 3-by-4-inch shots in about 90 seconds at 320 by 320 dpi. The P-200 accepts your camera's CompactFlash or SmartMedia Card and adds a UV overcoat to protect the image from light and heat. This printer does not connect to any computer.

## X-RATED SOUNDS

Audio Software and Hardware Arrive on Mac OS X

Well, it's about time. Recording engineers and musicians can finally make their way into Mac OS X, now that Logic Audio 5.0 (currently \$299.99 to \$699.99, [www.emagic.de](http://www.emagic.de)), Digital Performer (\$795, [www.motu.com](http://www.motu.com)), and BIAS's entire pro audio line, including Deck 3.5 (\$399, [www.bias-inc.com](http://www.bias-inc.com)), are Mac OS X native. These professional, multitrack audio packages work with OS X's Core Audio. Deck 3.5 is available now. Expect the newly Apple-acquired Logic Audio



to ship in September, and look for Digital Performer by the end of 2002.

## CARD SHARKS

ATI Announces Two New Mac Cards

ATI ([www.ati.com](http://www.ati.com)) ups the ante with two new AGP graphics cards for the Mac due out this fall: the Radeon 9000 Pro and Radeon 9700. The Radeon 9000 Pro, priced under \$200, supports Mac OS 9 and Mac OS X, has 64MB of DDR SDRAM on board, renders with four 3D pipelines, and comes with ADC and DVI-I connectors. The top-of-the-line Radeon 9700 uses a brand-new, full floating-point architecture to retain the maximum amount of color data from graphical computations, creating better-looking graphics. The Radeon 9700 comes with 128MB of onboard DDR SDRAM as well as eight 3D pipelines for faster rendering. The PC version of the Radeon 9700 costs \$399, but there's no final word yet on the exact Mac price. As of press time, the Radeon 9700 fully supports only OS X, and exact pricing and board configurations for both Mac Radeon cards were not available.

# DIRECTX TO MAC

New Developer Tool Helps Bring PC Games to the Mac

The Mac game-porting industry is getting a major facelift. United Kingdom-based software developer Coderus recently released MacDX, a set of APIs that allows Windows game developers to bring PC DirectX games over to the Mac.

## WHAT'S DIRECTX?

Most Windows games today are developed with DirectX, a Microsoft proprietary technology for Windows, or with the open-standard OpenGL. While the Mac OS does a fairly good job in supporting OpenGL, it can't do a thing with DirectX code. That means developers have to retool DirectX games completely for the Mac.

## ENTER MACDX

MacDX translates DirectX calls, code that ties directly into a computer's hardware, into language the Mac can understand. Developers don't have to port the DirectX code itself because MacDX handles the translation.

In effect, Coderus has ported the entire DirectX API tool set to Mac OS 9.x and Mac OS X. With DirectX calls taken care of, developers are left with just a few tasks, such as creating a Mac installer and GUI elements outside gameplay. Developers could conceivably make a game ready for Mac within a few days or weeks. Coderus CEO Mark Thomas says, "The game should be just as fast as it is on a [comparable] PC."

## THE GAMES

You can play one MacDX game right now. In the United States, Freeverse Software is distributing Virtual Programming's WipeOut 2097 (Freeverse, [www.freeverse.com](http://www.freeverse.com), \$29.95). Virtual Programming will also bring Kickoff 2002, Tzar Burden of the Crown, and Europa Universalis II to the Mac. "We are currently undergoing licensing discussions with a few large PC-game companies," Thomas says, so look for more PC games to head to the Mac.—*Bryan Chaffin*

MacDX freed this game from the PC world's clutches.





# personals

like ships  
passing in  
the m

**SUPERMARTIN** I got older gal with Spidey hair, working at WFM. Me: 23, open to possibilities and ravenous for new life experiences. #6922

**COOL** I did not get you made my day, beautiful. I would read Did I read

**PHONE-PLAYING** I did not get you made my day, beautiful. I would read Did I read

**WE MET IN MADISON** I did not get you made my day, beautiful. I would read Did I read

**FROM WCW** Exchanged shoes at cage match. It was pure magic. Would love to get you in a deeper hold. #5627

**BEAUTIFUL AND SEVENTEEN** Met you at the Metro. You were on a date with someone else. Next time it will be me. #6973

**LEVITATING BUDDHA SWORD** I did not get you made my day, beautiful. I would read Did I read

**VEGETARIAN BOWLER** You bought me a warm beer and stole my heart. Used same kind of ball and spoke of hatred of rented shoes. Would love to chat over hummus. #5684

**LAWN CARE?** My husband got lazy and hired you to mow our lawn. Instead you landscaped my erotic fantasies in ways I have never imagined. Could not pronounce your name but looked very sensual. I had blue shoes on. #3696

**TWINS WHO SAW TWINS** Us: two handsome guys in suspenders walking Maltese. You: two foxy ladies fighting over last piece of gum. What do you say the four of us make two good looking couples? Twin love. Call me. Call me. #4747

**DUGOUT FIRECRACKER** You were cleaning up a beer that you spilled on your white t-shirt and threw a whiskey bottle at the umpire. Must meet you and make children. #5551

**LORIN, YOU'RE GORGEOUS** funny and brilliant. I don't deserve you but a girl can dream. #6885

**SY FROM DOWN SOUTH** You sat with us at Smitty's 11/24, missed you at The Boot. Wanna meet after work sometime? Call and gimme your number baby. #6927

**CLAY** I did not get you made my day, beautiful. I would read Did I read

**RON FROM SANTA FE** You danced with me at the Rattle & Cattle Club. Thanks! I was shy. Can I see you again? Will come down to look for you Friday night. #6841

**GORGEOUS, WITTY, BORN TO TEASE** love theater, dance, golf, warm conversation. If you're tall, 35-55, non-smoker, financially secure, enjoys pampering a woman, traveling, long walks and stars, please call. #6821

**ME: LONELY SWEDISH LINGERIE MODEL and gourmet cōok. You: slightly overweight and without ambition. Must be into computers, role-playing games and air hockey. #5988**

**49, PLAIN BUT WITH GOOD BITS** overweight but curvy, great mind, wicked sense of humor, and a weird view of life looking for like minded person. Age not important. #6994

**TREE HUGGER, MID 50'S**, light smoker, tall. Like easy living, tropics and I'm friendly. Seeking considerate, semi-fit companion with a clue. Must love dogs and reggae. #6963

**ARE YOU HONEST**, handsome, successful, financially secure, intelligent, world traveled, cultured, creative, fit, playful, adventurous, passionate, humorous, caring, loving, and between 46 and 58? Respond to European blonde female counterpart. #6852

**ARE YOU STIMULATED BY** beauty, intelligence, humor? Attractive SWF wants good looking SWM or SHM for romantic adventures, possible long term. Essentials: honesty, passion, kindness, sensuality, integrity, open mind. #6741

**ATTRACTIVE TALL (5'10")**, slender DPWF, 46, emotionally and physically fit, youthful appearance and outlook, intelligent, loving, desires long term relationship. #6853

**YOU WON'T BELIEVE YOUR EYES** when you see this very cute, petite, DWF, 46, long brown hair/hazel eyes, 5' 110, outgoing personality seeks DWN, 46-55, non smoker, fit, college educated. Call me, let's see if the chemistry is right! #6951

**SWF 26, STRAWBERRY CURLS** and tattoos. Craving a complex, enlightened, educated, intelligent, and beautiful. #6852

**NOT SO DESPERATELY** seeking one smart, strange, sexy boy to court and spark. Me: 23, open to possibilities and ravenous for new life experiences. #6933

**SWINGING SANTA** Lonely man who only works 6 weeks a year seeking woman with full time employment with benefits looking to grow old with man who shakes like a bowl full of jelly. #1258

**WM, 95, RECENTLY WIDOWED**, seeking 18-20 hottie for "fun". Call soon. I'm not getting any younger. I'll put you in my will. #6757

**BALD ROMEO** You serenaded the old people at the old people home last weekend. You were a terrible singer and quite unattractive, but your heart is obviously pure gold. My sister would be perfect for you. #7887

**MONKEY TRAINER** Seeking woman to train my monkey. Seriously, his name is Murphy and he is a 3 year old chimpanzee. He likes pop tarts and nice people. Plus, you and I will have sex. #7874

**SINGLE MAN** Single man seeking single woman for relationship. I enjoy dating and talking on the phone to women that I am dating. Would love a chance to date someone. #1254

**CUTIE PIE SMARTY PANTS** are you a girl? I'm looking for a girl who is smart, sexy, and beautiful. #6852

**SIDESHOCK** I did not get you made my day, beautiful. I would read Did I read

**WE MET IN MADISON** I did not get you made my day, beautiful. I would read Did I read

**FROM WCW** Exchanged shoes at cage match. It was pure magic. Would love to get you in a deeper hold. #5627

**BEAUTIFUL AND SEVENTEEN** Met you at the Metro. You were on a date with someone else. Next time it will be me. #6973

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**CLAY** I did not get you made my day, beautiful. I would read Did I read

## We're Easier.

Create anything from prototypes to full professional applications. Just drag and drop interface elements while REALbasic handles the details. You concentrate on what makes your stuff great — your ideas! REALbasic creates native compiled applications for Macintosh, Mac OS X and Windows without platform-specific adjustments. It's the powerful, easy-to-use tool for creating your own software. Each version of your software looks and works just as it should in each environment.

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## INTHESTUDIO

# HELENE DELILLO

Fashion Meets Digital Photography

Beauty is Helene DeLillo's business. DeLillo is a professional fashion photographer ([www.helenedelillo.com](http://www.helenedelillo.com)), digital imaging specialist, and founder of the Dancing Icon digital imaging and photography company ([www.dancingicon.com](http://www.dancingicon.com)). Her work has appeared in *Rolling Stone*, *Entertainment Weekly*, and *Time Digital* (now known as *On*, [www.onmagazine.com](http://www.onmagazine.com)). Clients also include Sotheby's auction house and the J. Walter Thompson advertising agency. She talked to us about why she prefers digital cameras and how she shot her recent photo essay, "Faces."

## CHOOSING FACES

After considering about 200 models, DeLillo settled on six women for a study of facial expressions. She shot each model close up with two looks; a clean, neutral look and a stylized look with lavish hair and makeup. DeLillo took lots and lots of shots in uncompressed TIFF or highest-resolution JPEG modes, recorded onto Lexar CompactFlash cards ([www.lexarmedia.com](http://www.lexarmedia.com)). "The Lexar cards let you shoot faster, and Lexar has a piece of software where if you're shooting and the card gets corrupted, you can recover the files," she says. Shooting digitally also relieves you of film and processing expenses, so you can shoot as many frames as you want. DeLillo captured and archived over 20GB of data for the "Faces" project.

## CAMERA CAMARADERIE

DeLillo shoots digitally, and she picks her cameras the old-fashioned way: by look and feel. She says she likes the 4-megapixel Kodak EasyShare DX4900 (Kodak, [www.kodak.com](http://www.kodak.com), \$380 street) because it's "fun and unintimidating" and has "amazing" sepia settings. Cameras like the EasyShare are small and inconspicuous—great for casting calls, shooting in places for which you don't have permits, and warming up the models. DeLillo likes the 5.3-megapixel Nikon D1X (Nikon, [www.nikonusa.com](http://www.nikonusa.com), \$4,900 street) because it lets her switch lenses and

Look for more digital photography tips and Photoshop techniques at [www.dancingicon.com](http://www.dancingicon.com).



The faces of Helene DeLillo's "Faces" project: DeLillo took hundreds of pictures of model Angelique (top left and top right) and cataloged them in iPhoto. DeLillo used a smaller Kodak EasyShare DX4900 to warm up model Lucy, then switched to a heftier, 5-megapixel camera for studio lights (bottom left and bottom right).

capture high-resolution files as raw NEFs (Nikon electronic-image format). NEF enables you to retouch and color balance in Photoshop's 16-bit high-resolution mode. Though she didn't use it for this project, DeLillo also likes the Nikon Coolpix 5000 (\$1,099 street) because of its range of manual controls.

## LIGHTS, CAMERA, AND SHORT BURSTS OF ACTION

Digital cameras, especially consumer cameras, do have their quirks. DeLillo says, for example, that they can falter in low-light situations, creating a lot of noise (pixel degradation) in the shadows. The built-in flash is good for certain situations; however, many of the cameras under 4 megapixels don't have the ability to connect to professional lights via a sync cord. "These cameras don't always allow me to shoot as fast as I like to, and I lose capturing the moment," she says. Many of the

manufacturers have added buffers so that you can shoot three to six frames in a burst mode. There are cameras designed to shoot really fast, but they cost a *professional price*.

That doesn't mean consumer digital cameras can't take great pictures. "I think that 3.1-megapixel cameras are enough for people in the consumer and prosumer [categories]," DeLillo says. "The amazing thing about the prosumer and consumer digital cameras today is that you can make gallery-size prints if your exposure and lighting are good."

## COURTING DAVID AND GOLIATH

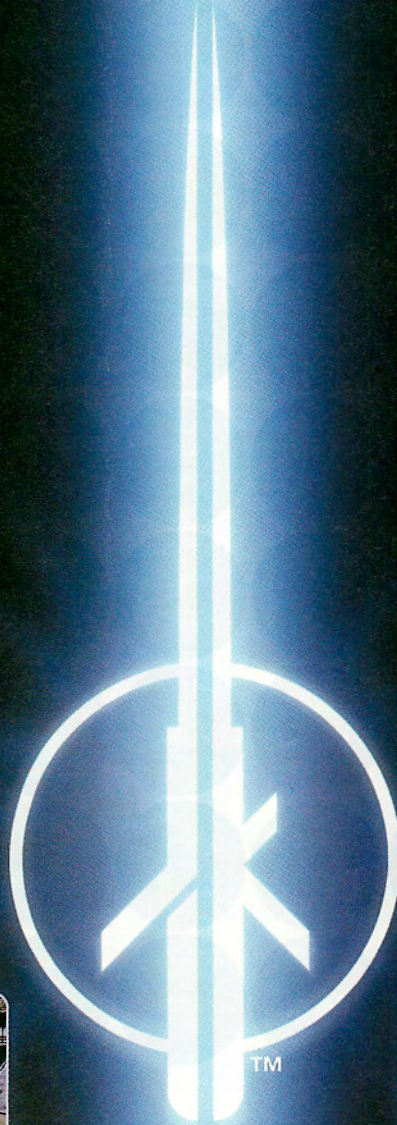
DeLillo loves Photoshop 7, for both its speed in Mac OS X and its photo-editing tools. She's also a big fan of Apple's free iPhoto app, which she uses to create hardbound books and slide shows of her work. "I really love iPhoto," she says. "To me, it's one of the most amazing uses of technology I've seen in years."—Narasu Rebbapragada

PHOTOGRAPHY BY HELENE DELILLO HAIRSTYLIST KURT LOWRY MAKEUP ARTIST DEANNA MELLUSO



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TO KNOW THE LIGHT, YOU MUST SEE THE DARK.



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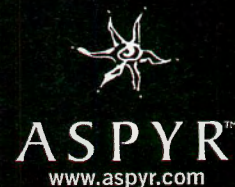


Violence



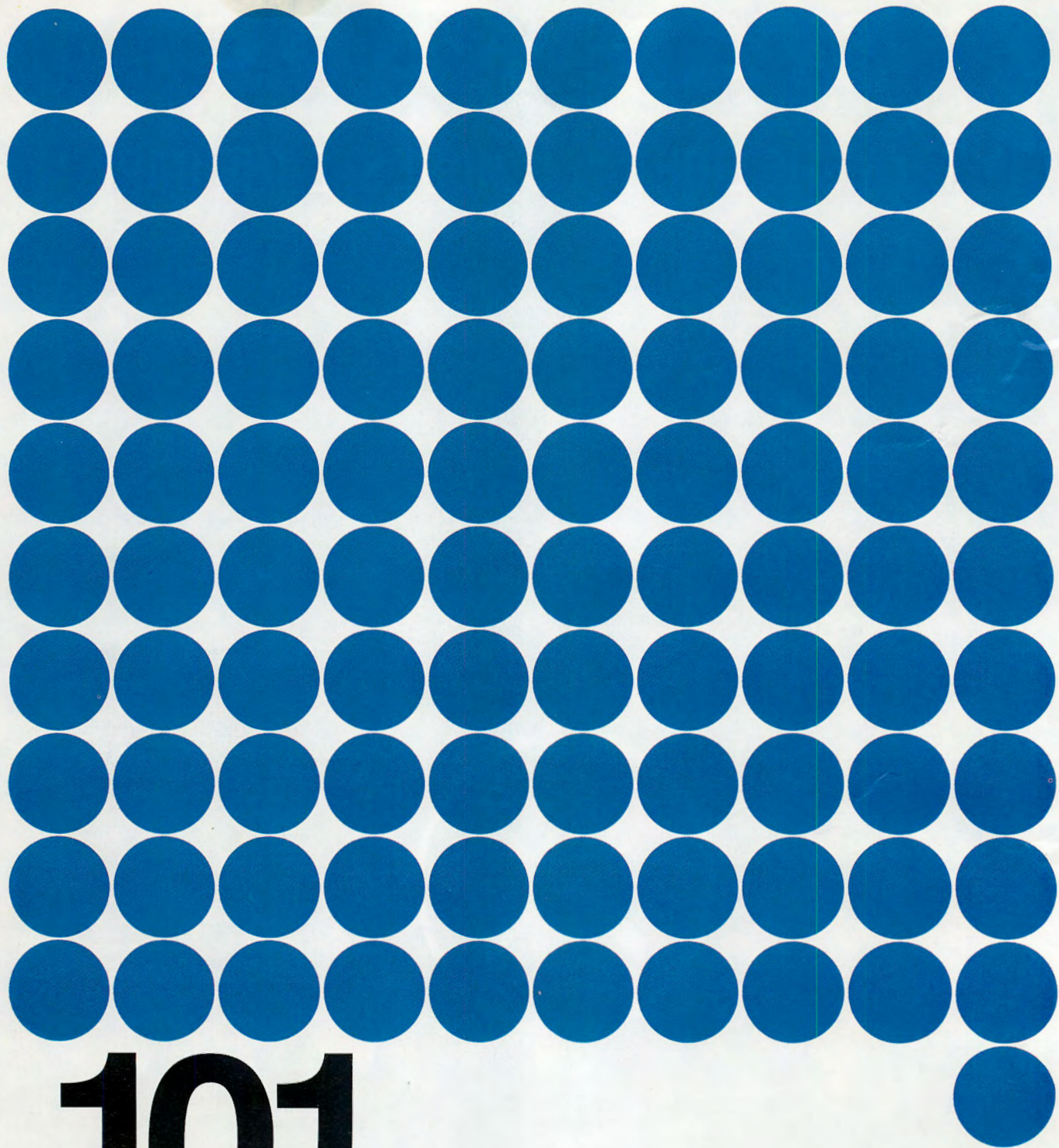
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# 101 Tips

by David Schloss



## Your Mac is only as powerful as the person who controls it.

That's you.

Sure, you're already a power user. But there's always another trick to learn. Another shortcut to take. Another hidden key-combo that'll make your day just that much better.

Here are 101 of them. These easily digestible tidbits will make your life easier, increase your productivity, and make you even more of the power user you already are.

Somebody has to be the smartest, best-informed, übertechiest Mac addict on the block.

Why not you?



ASM 2.0.2, Classic  
Toggler 1.4, CopyPaste  
X 1.4, DeLocalizer 1.0,  
GraphicConverter 4.4.3,  
IPNetMonitorX 1.0, LaunchBar  
3.2.2 demo, TinkerTool (OS X)  
2.2b, X-Launch 2.12d2, and  
XRay (OS X) 1.0

# The Mac OS X Finder

The Finder is the heart and soul of your Mac's OS, so improving the way you work with the Finder means improving your life.

**1** Column View rules, but one problem is that the **columns aren't always big enough** to display a file's full name.

Well, check out the bottom of your column dividers. You'll see a || symbol—click this symbol and drag it to widen or shrink the width of all your columns. Or Option-drag this symbol to resize only the column selected. (Dragging the normal resizing tab changes the window's size, but not the column's width.)



Click the || symbol at the bottom of the column dividers to resize your columns.

**4** To **minimize all the windows** of an active application, Option-double click the title bar. Sadly, you can't maximize them all at once.

**5** Here are a few ways to **edit file names in the Mac OS X Finder**: Put the cursor at the end of a file name and press Option-Delete to erase one word at a time. Or put the cursor in the middle and press Option-Shift-back arrow and Option-Shift-forward arrow to select a batch of words to delete.

**2** If you are running a Cocoa app, Option-click the title bar's red widget to **close all the windows** in an application.

**3** If you've ever moved a file from one drive or partition to another, you know that just dragging the file over creates a copy on both volumes. But if you hold down the Command key while you drag the files over, you'll end up actually **moving them to the new drive** and removing them from the old for a little space-saving action.



If you have two hard drives, **Command-drag** to move (not copy) a folder to the second drive.

**6** Problem with your Dingbats? (Our significant others assure us it happens to everyone.) OS X doesn't handle symbol fonts the same way OS 9 does, and that can cause problems. In OS X, **symbol fonts are in a format called Unicode**, which allows symbols to appear correctly even on different systems. To use a Unicode font, you have to turn on its keyboard (as if it were a language) in the International system preference. Click the Keyboard Menu tab, and then click the Dingbats check box. Now return to your application, and choose Dingbats from the language menu bar icon (a little flag). See, isn't that simple?

To give Mac OS X access to Dingbats, turn on the Dingbats keyboard in the Keyboard Menu tab of the International system preference.



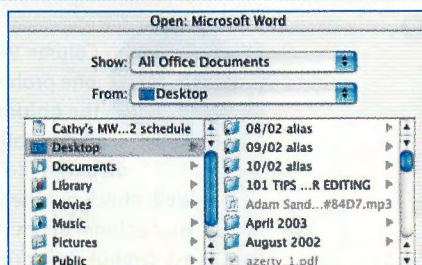


# Finder Shortcuts 7-12

Most people would be amazed at the number of things they can do on their Macs by simply pressing a few keys. The only thing missing is a key for ordering pizza. Until Apple invents that, give these tips (which work in both OS 9 and OS X) a shot.

**7** Command-up arrow **moves you up one level in the folder hierarchy.** In OS X, if there are no open Finder windows, this command opens the Users folder.

**8** In any application's Open or Save dialogs, pressing Command-D **selects the user's desktop location.** (In OS 9, this command just takes you to the main desktop, since all users share the same one.)



Pressing Command-D in an Open dialog zips you to the desktop.

**9** Lugging items across your desktop to the Trash all day can be a (pardon the pun) real drag. Instead, simply click the object of choice and press Command-Delete, and it's (pardon this one, too) at your disposal. This works for single items, folders, groups, and so on.

**10** Select a file in List View and press Command-Option-right arrow to **open that folder and all of its subfolders.** (Command-Option-left arrow closes them.)

**11** On older Apple and third-party keyboards, holding down the F12 button for a second or two **works like the eject button** on newer Apple keyboards.

**12** Hold down Option while dragging to **duplicate a file**, or Option-Command to **make an alias.**

## 13-20

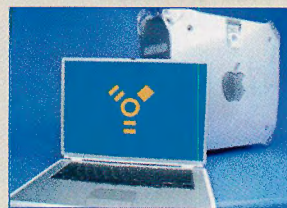
## Startup

In the few seconds it takes your Mac to come to life, employing any of a number of keyboard modifiers can really change the process. Note that unless we say otherwise, you should press and hold down the following key commands as soon as you hear the boot chime, and release them when the activity you're inducing is, uh, induced.

**13** In OS 9, holding down **Command disables virtual memory.** (This is an integral part of Unix, so you can't disable it in OS X—but why would you ever want to?)

**14** Holding down Delete-Option-Command-Shift **forces your Mac to boot from external media** such as a CD. This is a lifesaver during troubleshooting, so it's good to remember. Many refer to this trick as DOCS, after the letters that make up the key combination. (Bonus tip: Holding down just the C key tells the computer to boot from CD. DOCS frequently works when that technique doesn't, and will make your Mac boot from the first bootable disk it finds.)

**15** To **transfer information quickly between most Macs** that have built-in FireWire, use Target Disk Mode. Simply connect the two machines with a FireWire cable, and then restart one of the Macs while holding down the T key. That computer will then act as an external FireWire drive. This is especially great if you're trying to back up a startup volume. Since the files aren't in use on the Target Disk Mode machine, you won't get a "file in use" error message when copying. It's also possible to connect several computers to install software on all of them or perform group backups.



For hell-a-fast file transfer, connect two Macs via FireWire and start up one of them in Target Disk Mode.

**16** Holding down Command-S on an OS X-based computer **boots it into single-user mode.** This mode prevents other users from logging into the same system and provides more control over system resources.

**17** Holding down the mouse button should **eject any removable media** such as CDs and Zip disks—great when your Mac thinks there's nothing in the CD tray, even though you know Galactic Battleground really is stuck in there.

**18** Holding down the X key **makes your Mac boot into OS X,** even if you've set OS 9 as the startup disk. Keep holding down the X key until you hear the second chime and see the happy Mac icon. (If you've got a beige G3 or earlier model, you're out of luck—this trick works on newer Macs only.)

**19** Holding down Shift has **different effects,** depending on what OS you're using. In OS 9, Shift disables all extensions. OS X has no extensions, but Shift prevents Login Items from loading (except on systems with OS X through 10.1.2, in which it has no effect).

**20** In OS X, holding down Command-V **displays console messages** that describe basic system-activity information. Displaying it during startup enables you to see what's going on behind the scenes—not often useful, but always geeky fun.



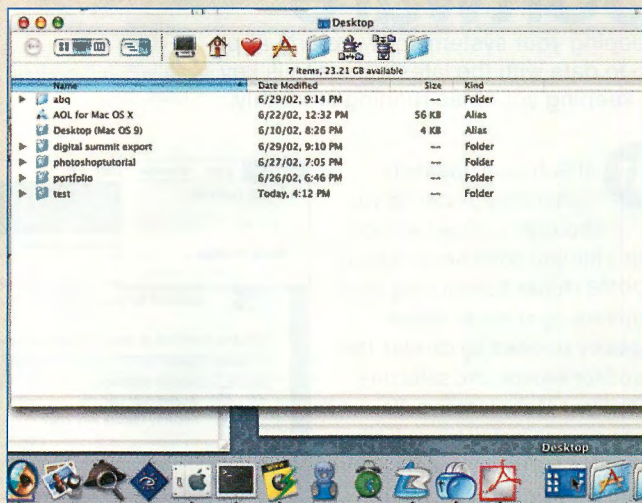
# The Dock

The Dock is your launching pad for applications and such in Mac OS X. Treat it well.

**21** There are two quick ways to **move your Dock to another part of the screen** (besides going to the Apple menu). You can Control-click the Dock's divider line, select Position On Screen, and then choose Left, Right, or Bottom to move the Dock to another part of your screen. An even easier option is to hold down Shift while clicking the same divider, and then drag the Dock where you want it.

**22** Ever notice that Dock icons have an annoying habit of moving out of the way as you try to drop files on them? You can temporarily bypass this behavior by holding down Command while dragging items over the Dock, **forcing the Dock icons to stay put**. This is especially helpful when you're trying to drag a handful of files onto a Docked folder—instead of moving aside, the folder lets you drop the files on it without difficulty.

**23** Drag the Desktop folder (from your Users folder) to the Dock, and you have a **one-click way to access items** stored there—useful when you've opened multiple windows, which can obscure the folders and files stored on your desktop.

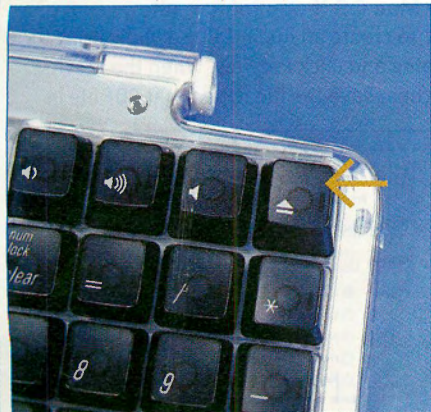


Stick your Desktop folder in the Dock for quick access.

# Shut Down and Restart

While most people should already know that pressing the keyboard's power button brings up a dialog giving you the choice between Sleep, Restart, and Shut Down, there are plenty of other ways to shut down or reboot at the press of a button.

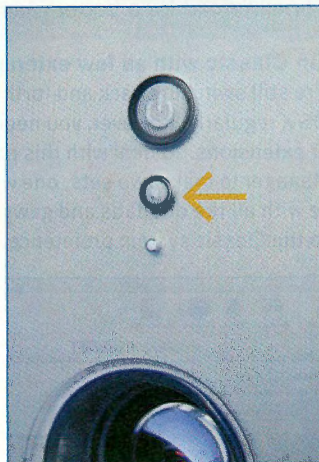
**25** OK, so we hear you saying, "I don't have a keyboard power button." Well, on **keyboards with eject keys**—on the top right of the keyboard, with an icon resembling a cassette deck's eject button—press Control-eject to bring up the Sleep/Restart/Shut Down dialog. If your keyboard has neither keyboard power button nor an eject key, sorry: You're S.O.L.



The eject key can sometimes sub for a keyboard's power button.

**26** If your Mac is frozen, sometimes it just needs a reset, which requires pushing a teeny button found in any variety of places. On most desktop and tower Macs, reset is located beneath the power button on the front. On some, it's hidden somewhere on the back. On portables, it's located on the side or the back. **The reset button has a little triangle icon** either on it, or right next to it, as the triangle is the international symbol for "Oh crap, my computer's frozen."

There's the reset button. Use it sparingly.



**28** Another way to **deal with a frozen Mac** is to hold down its power button for about 6 seconds (this works on newer Macs). This is the newfangled equivalent of pulling the plug.

**24** Pressing Command-Control-power button (or Command-Control-eject) reboots unconditionally—in other words, **performs a forced reboot**. Word to the wise: This is a last resort. It can really muck up an otherwise tidy system.

**27** If you want to **read about even more Mac key sequences** for use in a whole boatload of different situations, turn to Dave Polaschek's excellent compilation page at <http://davespicks.com/writing/programming/mackey.html>.

**29** Command-Option-power button (or Command-Option-eject) **puts your system to sleep**. This one doesn't work on older Macs.



# Updating Software

Keeping your system software and apps up to date with the latest releases is key to keeping your Mac running smoothly.

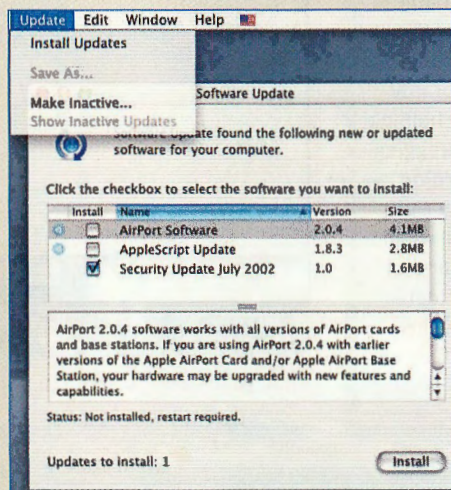
30-33

30

If you're really serious about **keeping your Mac up to date**, go to VersionTracker ([www.versiontracker.com](http://www.versiontracker.com)) and spend the \$50 on Pro registration. Pro users get (among other things) access to VersionTracker's excellent client software, which scans a hard drive for outdated programs and system resources and allows one-stop downloading of updates on up to ten computers. Aside from a two-year subscription to *MacAddict*, it'll be the best 50 bucks you ever spent.

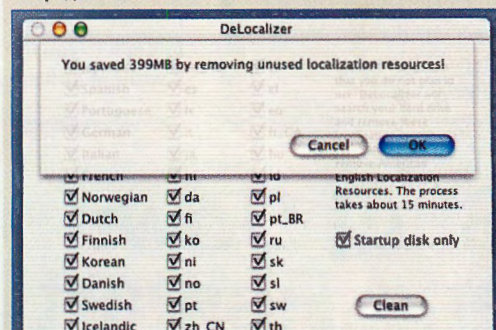
- 31** If Software Update is constantly pestering you about an updated version of a file you don't need—say, a 20MB iTunes Korean Language update—**get rid of those pesky notices** by clicking the update's name and selecting Update > Make Inactive. You can always install these later by running Software Update again and choosing Update > Show Inactive Updates.

**Don't have AirPort? Tell Software Update to make the AirPort update inactive and forget about it.**



- 33** Another problem with Software Update is that once you've installed an update, you can't go back and download it again. **Keep a copy of the installer around** by going to Apple's support page and downloading the file ([www.apple.com/support](http://www.apple.com/support)). Burn these files to a CD to make reinstalling easier.

- 32** Many OS X users just install whatever Software Update throws at them, producing hundreds of megabytes of **useless language system files** that suck up precious drive space. For you American readers, remove them by reinstalling OS X and making sure to install only the American English files, or use the excellent DeLocalizer freeware, available at <http://software.bombich.com>.



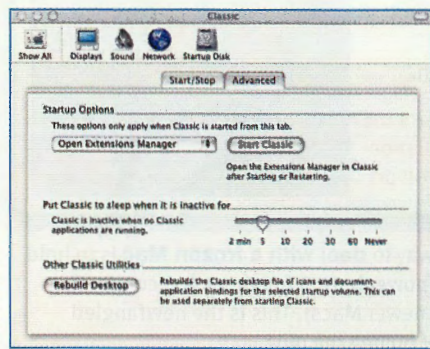
**Save hundreds of megabytes of drive space by using DeLocalizer to strip out unused language files.**

## Mac OS X's Classic

Steve Jobs may have declared OS 9 dead, but we'll keep using Classic mode, at least until developers finish converting our favorite apps to OS X. In the meantime, keep these tips in mind for a better Classic experience.

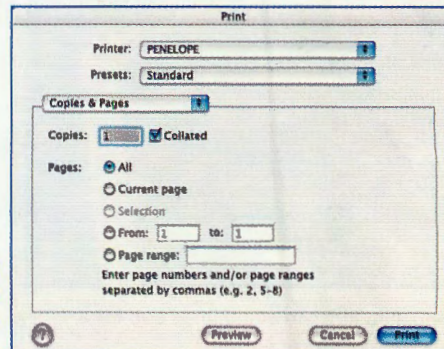
- 39** It's a good idea to **run Classic with as few extensions as possible**. If you're still switching back and forth between OS 9 and OS X regularly, however, you need all your drivers and other extensions. To deal with this paradox, use OS 9's Extensions Manager to make two sets, one with the bare minimum for OS X and one with all the doodads and gewgaws required for OS 9. In OS X, go to the Classic system preference, click the Advanced tab, and then change Startup Options to Open Extensions Manager.

**Streamline Classic operations with a custom extensions set. Simply request that Classic boot up with Extensions Manager.**



- 40** Can't print a letter because your printer has no OS X driver? Just grab a copy of Adobe Acrobat Reader for OS 9 (download it from [www.adobe.com](http://www.adobe.com)). What, you say? Just about **every Mac OS X application allows you to print a PDF file**. To create an instant PDF, simply bring up an app's Print dialog and click Preview. When the Preview application launches, save the file. Open that PDF file in Acrobat's OS 9 version to print it.

**Click Preview in the Print dialog to create a PDF.**



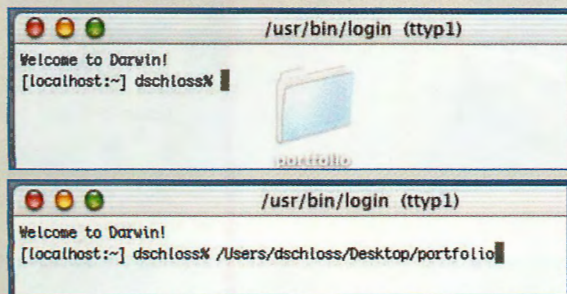


# Unix

If you feel like you have the Finder and Aqua interfaces under control, it's time to dig into Mac OS X's Unix underpinnings and the Terminal.

- 35** The Terminal is somewhat clairvoyant, so it can **autocomplete some actions** for you. After you've tried the previous tip, type `~/Do`, then press Tab. The Terminal automatically fills in the word *Documents*.

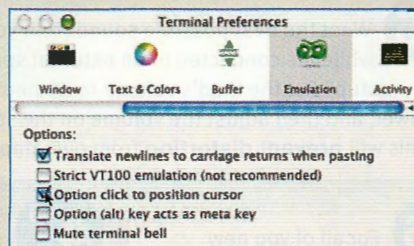
- 37** In Terminal, you have to type the path to a folder. Sometimes this can be a bit confusing, especially on systems with multiple volumes or partitions. **Dragging a folder or file onto Terminal reveals its path.** You can even use this trick in conjunction with Unix commands. Simply type the command and a space, drag the file onto Terminal, and press Enter.



Dragging a folder or file to Terminal (top) inserts its path (above)—no typing required.

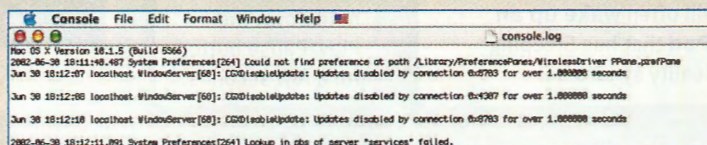
- 34** Instead of typing `cd /Users/username/Documents` or the complete path of an item inside your Home directory, simply type a tilde (~) to **get to your Users folder**, as in `cd ~/Documents`.

- 36** Bad typists have a reason to rejoice. In Terminal you can **position the cursor without using the arrow keys**. Open Terminal's preferences, then move to the Emulation settings in the scrolling menu at top. Click the box that says Option Click To Position Cursor, and from then on simply Option-click wherever you'd like to input text.



**Don't get stuck using the arrow keys. Set your Terminal preferences to allow positioning with the mouse.**

- 38** Want to **see what your Mac is really doing**? Open up the Console via Applications > Utilities > Console and check out your log files. The system and applications write messages here, so it's a good place to look for clues when you're troubleshooting.



Check the Console application to keep tabs on what your Mac is doing beneath the surface.

## EASY CLASSIC LAUNCH

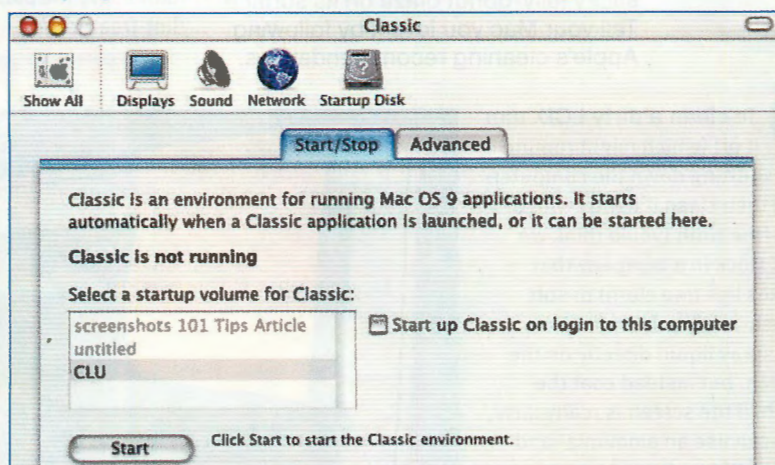
Most people launch Classic by double-clicking an OS 9 application's icon, yet many Classic applications behave poorly (or not at all) if you launch them *before* Classic has loaded completely. There are several ways to get around this problem.

- 41** If launching Classic through the system preference is too much work for you (see #42), launch Classic once this way. While Classic is launching, Control-click the icon in the Dock and **choose Keep In Dock**. From then on you can launch Classic by clicking the Dock icon.



You can force the Classic icon to stay in the Dock for easy access.

- 42** Start Classic via the Classic system preference, then **launch the programs once Classic has finished launching**.



Click Start in the Classic system preference to start up Classic first.

- 43** If you want **even more control of Classic** and the OS 9 Desktop, try one of the half-dozen pieces of Classic-launching shareware that run as miniapplications in the Dock. We're fond of Northern Softworks' Classic Toggler (\$6.95, [www.northernsoftworks.com/classictoggler.html](http://www.northernsoftworks.com/classictoggler.html)).



# iPod

While we anxiously wait for Apple to design something *really cool*—say, a robot that uses voice activation to make blender drinks, or a television that automatically changes the channel whenever *Star Trek: Voyager* comes on—we'll have to make do with the iPod. Not that that's a bad thing.

**45** Want the best possible sound from your iPod while it's connected to an external speaker setup? Set the iPod's volume to 50 percent or lower, and then adjust the volume on the speakers. This will **prevent distortion** from overamplification.

**46** For all of you new iPod owners: Become accustomed to the Menu and Play/Pause buttons. Holding down these two buttons together for approximately 5 seconds will often **wake up an iPod** that has Sleeping Beauty syndrome.

**47** For all of you new iPod owners who also don't like reading instruction manuals: To **turn off your iPod**, hold down the Play/Pause button for a few seconds.

**44**

The iPod theoretically has a long enough life to play throughout a plane ride across the United States—and back. *Theoretically* is the key word here. To **maximize the life of your iPod's battery**, turn off the equalizer, don't skip forward or backward often (that forces the iPod to spin up the hard drive and read files to memory), and make sure all the songs on the playlist are less than 20 minutes long. With the iPod's generous but finite 20-minute buffer, a longer song forces the iPod to spin the hard drive continually, killing the battery faster than you can say "In-a-Gadda-da-Vida."



There are ways to make your iPod keep goin' and goin' and goin'.

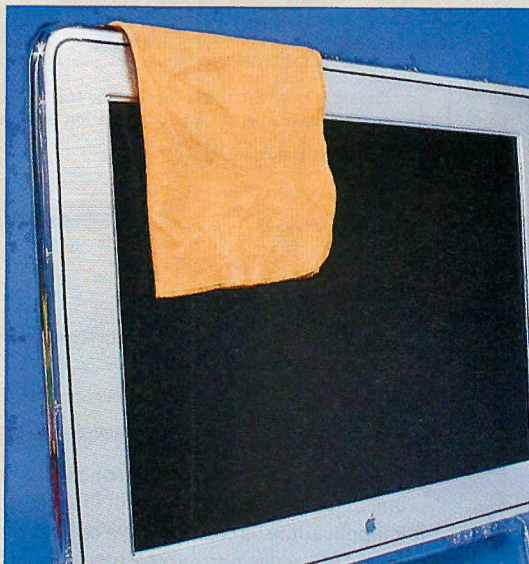
48-  
52

# Cleaning

Apple's design team didn't spend months creating a classy computer only to have you accidentally smear sticky jelly-donut glaze on its surface. Tell your Mac you love it by following Apple's cleaning recommendations.

**50** To **clean a dirty LCD**, turn it off (which might require shutting down the computer) and then clean it lightly with a lint-free cloth (you'd think we had stock in a company that makes lint-free cloth) or soft paper, using only water. Do not spray liquid directly on the screen, but instead coat the cloth. If the screen is really dirty, you can use an ammonia- and alcohol-free glass cleaner, or use pads and wipes from the Apple-approved Klearscreen line ([www.klearscreen.com](http://www.klearscreen.com)).

Treat your baby right—  
by cleaning it with a  
lint-free cloth.



**48**

Clean the **outside plastics** of any Apple computer with a lint-free cloth and mild nonabrasive soap or detergent. Remove any dirt with hand cleaning alone. Dry the plastic with another lint-free cloth.

**49**

Clean a **PowerBook's trackpad** with a soft cloth, and gently wipe away oil or dirt. Do not use any liquids to clean the trackpad.

**51**

For **internal dust**, the best thing to do might just be to leave it alone. Apple points out that a little accumulation won't harm anything. However, if there are tumbleweeds rolling around inside your Mac, it's best to use a small static-protected vacuum designed for electronics. Cans of compressed air are also good, though use only brands approved for use with electronics and follow the directions. Hold one of these cans pointed down, and you might shoot a stream of frozen gas at your computer's sensitive innards. Not good.

**52**

Clean the **lens of an optical mouse** with—you guessed it—a soft, dry, lint-free cloth.



# Streaming Radio

Take advantage of the streaming radio broadcasts available online. In addition to the stations listed in iTunes, check out [www.shoutcast.com](http://www.shoutcast.com). Just find a station in the site's exhaustive list, click Tune In, and it opens in iTunes. Here are some of our favorites.

**54 MetrolinaRadio.com** (available through Shoutcast): Blues—If you want to get down and rootsy, this hyperfunky **old-blues** station is the downest and rootsiest.

**57 FlareSound Jazzybeats** (available through iTunes): Electronica—This deep-dish **ambient electronica** with a jazz flavor makes for excellent background or mood music.

**55 Errika.net .arrrr!** (available through iTunes): Eclectic—Sometimes jazz, sometimes techno, sometimes mellow instrumentals, Errika.net is a **freeform station** programmed from more than 18,000 tracks.

**53 Wolf FM** (available through iTunes): Eighties Pop—This **eighties hits** station will make you either dance or cringe.

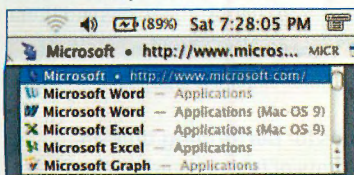
**56 Khaha.com** (available through Shoutcast): Comedy—This station is **all comedy**, all the time. We put together this part of the article while listening to streaming Monty Python.

**58 Beethoven Radio** (available through iTunes): Classical—People who hang out in Barnes and Noble on Saturday night will enjoy this station. (It's **classical**—did you pick up on that?)

# Shareware

Whether you use OS X or OS 9, you can find plenty of great shareware apps to tweak every facet of your Mac's behavior. Here are a few of our faves:

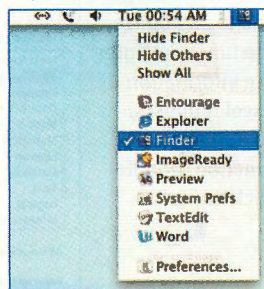
**59 Objective Development LaunchBar**—LaunchBar sits in the background and waits for you to press a specified key combination, then drops down a menu with **shortcuts to programs or files**. LaunchBar learns from your actions and can provide one-step access to frequently used files of any kind. \$19.95 (home), \$39 (business); [www.obdev.at/products/launchbar](http://www.obdev.at/products/launchbar)



Use LaunchBar to switch instantly to any application or open any file on your computer.

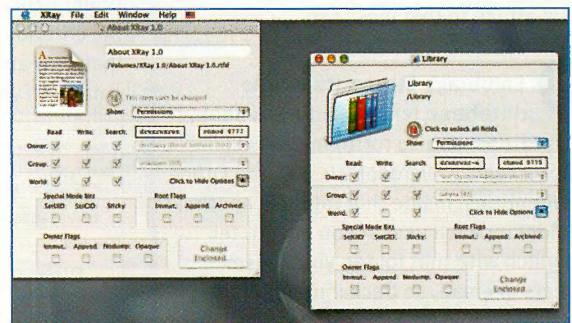
**60 Script Software CopyPaste**—Not satisfied with holding just one item in the Clipboard at a time? CopyPaste **adds 99 more Clipboard "slots."** Is that enough for you? \$20 (Classic or X), \$30 (Classic and X bundle), [www.scriptsoftware.com/copypaste/cpx.html](http://www.scriptsoftware.com/copypaste/cpx.html)

**63 Frank Vercruesse ASM**—Got OS X but miss OS 9's Application menu? ASM **restores the application-switcher menu** to its rightful place. Free (and open source), <http://asm.vercruesse.de>



You can have your Application menu and eat it, too, with ASM.

**61 Rainer Bockerhoff XRay**—What Mac OS X user hasn't been told that he or she can't throw out a file due to lack of permissions? XRay **zaps these permission errors** either individually or on a folder basis. \$10, [www.brockhoff.net/xray](http://www.brockhoff.net/xray)



Permissions getting you down? Grab hold of XRay and get a handle on your Unix side.

**64 Lemke Software GraphicConverter**—The end-all and be-all of **inexpensive graphics apps**, GraphicConverter does everything you wish iPhoto's Edit controls did, and more—much more. It's hundreds of dollars less expensive than Photoshop and good enough to handle about 70 percent of all your graphics needs. \$35, [http://lemkesoft.com/us\\_index.html](http://lemkesoft.com/us_index.html)

**65 David Yeh X-Launch**—Think of it as the Dock for OS 9, but better. X-Launch allows you to **set up a configurable file launcher**, which you can position anywhere onscreen. Free, <http://homepage.mac.com/dyeh/x-launch>

**66 Sustainable Softworks IPNetMonitor**—Available for both OS X and OS 9, IPNetMon (as we power users call it) **watches a network's traffic**, providing both analysis of the patterns and tools to control them. Network administrators and those with broadband shouldn't be without it. \$40, [www.sustworks.com/site/prod\\_ipmx\\_overview.html](http://www.sustworks.com/site/prod_ipmx_overview.html)

**62 Marcel Bresink Software TinkerTool**—This utility offers **one-stop modification of dozens of hidden Mac OS X features**. Disable the desktop, kill the animation effect during file open, move the Dock around, change the Dock's animation, change default fonts in Cocoa applications, and a whole lot more. Free, [www.bresink.de/osx/TinkerTool2.html](http://www.bresink.de/osx/TinkerTool2.html)



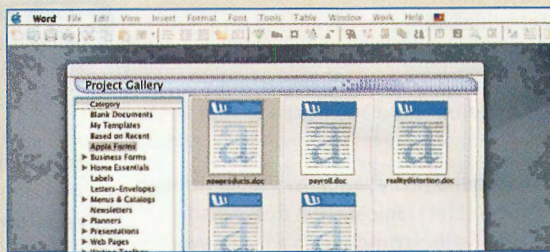
# Microsoft Office v. X

Microsoft Office is arguably the most-used Mac application. If you feel like you use its various applications a little too much, here are a few ways to save time and increase productivity so you can slide into that early-bird prime-rib special under the deadline.

## OFFICE

- 67** In Microsoft Office, it's possible (and easy) to **customize the Project Gallery** with templates you've created. Open the Microsoft Office X folder, then the Templates folder. Create a new folder—for example, one called Company Forms. Drag any files you want into that folder. The next time you open an Office application, you will see that folder in the Project Gallery. (Bonus tip: You can put subfolders in that main folder—say, Invoices, Letterhead, and so forth.)

Turn any file or group of files into templates for Microsoft Office.

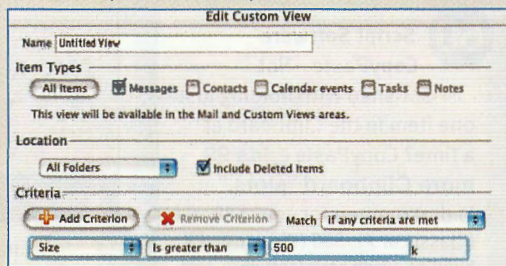


## ENTOURAGE

- 68** Drag any file from the Finder onto Entourage's Dock icon to **create a new message with that file attached**. If you've already opened a draft, the file will attach to that message.

- 71** Entourage **stores its whole database** (emails, address book, to-dos, and so forth) in Users > Documents > Microsoft User Data > Office X Identities. Inside that folder is another folder for each user. If you encounter a glitch with that folder, you'll lose years of email, so back it up regularly and keep it in an extrasafe location. Archiving the whole Microsoft User Data folder is a quick and safe way to make sure you've backed up all user data.

- 69** Entourage stores all of its mail, contacts, and tasks in a database file. To **keep the database file a reasonable size**, make a custom view showing all messages over 500KB. Simply scroll down through Entourage's mail-folder list on the left side until you see Mail Views. Double-click Mail Views and create a new view with the criterion set to show any file over 500KB. Click that view and you'll see a handy list of all the largest emails—if you don't really need 'em, delete 'em.



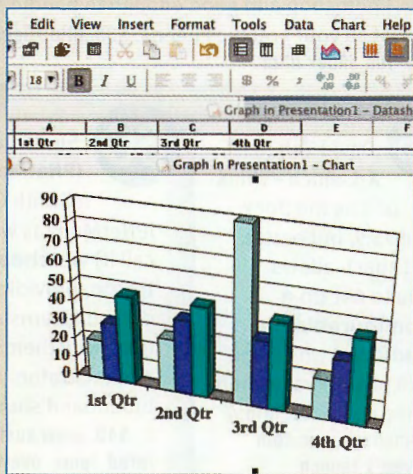
Create a custom Mail View to look at your largest emails.

- 70** Double-click a person's email address in Entourage's preview pane (the pane below your list of messages, showing the currently highlighted message) to **create a new address-book record** or append that person's email address to an existing record.

- 72** If you'd like to **archive a particular folder** of mail in Entourage, simply drag a folder from the mail window to the desktop. This stores emails in the Unix-standard mbox format. You can drag these folders into Entourage to import them, or send them as attachments.

## POWERPOINT

- 73** To **insert a 3D chart with perspective** in PowerPoint, first create a new slide with a chart, and then double-click the chart box to bring up the Graph application. Go to Chart > 3D View, then uncheck the Right Angle Axes box to modify the perspective.

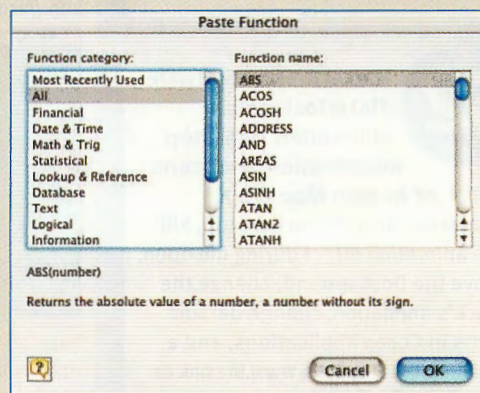


3D charts give PowerPoint presentations a touch of class and are easy to make.

## EXCEL

- 74** Excel has hundreds of functions for **performing built-in calculations**. To access the library of functions and create new ones, do the following: Click a cell to add a function to it. Go to Insert > Function and select a category or select All. Choose a function from the list; a description appears below it. Click OK and a window opens, allowing you to customize the function. Enter the information Excel requests. To edit this function, double-click the cell.

Stop hunting for the perfect Excel function; view them all with one trip to the Insert menu.

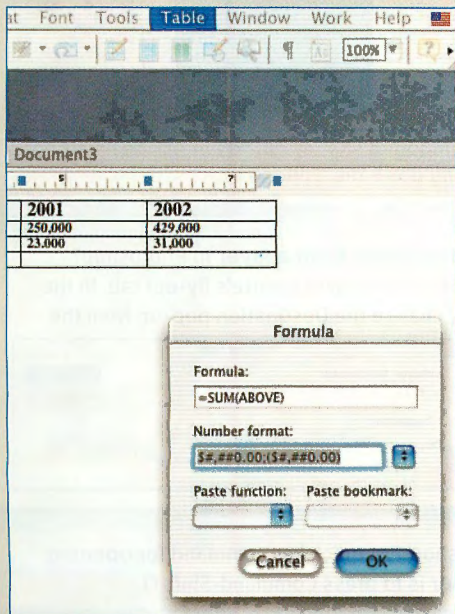




## WORD

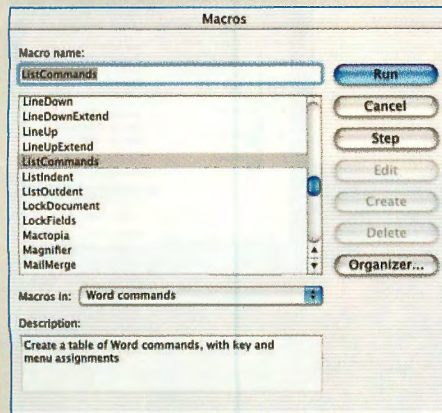
**75** Word offers a split horizontal view in the upper right of the document window, but you can **display the same page in side-by-side view** by selecting Window > New Window.

**76** To **create a minispreadsheet** in a Word table, choose the Table > Formula command and choose or type an Excel-style function.



Drop a spreadsheet into Microsoft Word without taking a trip to Excel.

**77** To **display every command and keyboard setting** quickly in Word X, go to Tools > Macro > Macros. In the dialog that appears, choose Word Commands from the Macros In drop-down list, then choose ListCommands and click Run.



Select ListCommands to get a list of every Word keyboard command.

## Games

Time to put away that spreadsheet and start horsing around. The following tips and cheats will give you the power to get the most out of your games.

**78** Why go to work when you can cheat? Players of The Sims will want to try the **Rosebud cheat, which gives you 1,000 Simoleons**—do that a few times and you can buy that plasma display you've been ogling. To activate the cheat, press Control-Command-Shift-C to open the cheat window, then enter **rosebud**.

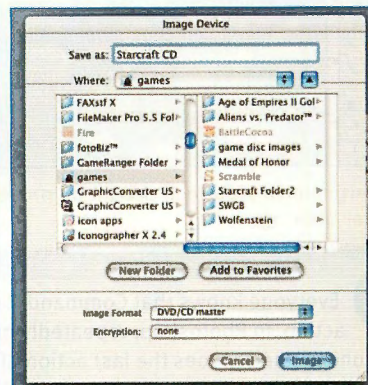
If only you could type a word to score a thousand smackaroos in real life. Alas, this only works in The Sims.



**79** Many games **only allow cheats when you've modified a preference file**. For Wolfenstein, open the MacWolfParms.txt file (in the Wolfenstein folder) and type **+set sv\_cheats 1** in the first line. Save the file and launch the program. To activate a cheat, press the tilde (~) key and enter a cheat. You can find a list of Wolfenstein cheat codes (and codes for other programs) at [www.cheatingplanet.com](http://www.cheatingplanet.com).

**80** Reduce motion sickness or nausea by **improving the frame rate** on certain games. See if making the in-game screen area smaller or adjusting the level of detail smooths the game—and your nerves.

**81** If you're on the road a lot and like to play games on your PowerBook, **leave the CDs at home**. Open up Disk Copy and select Image > New Image From Device. Choose the CD drive from the list of available devices, then click Image. In the Save As dialog, name your image with **exactly** the same title as the CD, and set Image Format to DVD/CD Master and Encryption to None. The result is a double-clickable image of the game that never gets scratched or lost. A few games don't work using this tip (though more than 90 percent of the ones we tried did), so try it out **before** you board that cross-continental flight.



Leave your CDs at home. Use Disk Copy to make an image of a game disc and run it directly from your desktop.



# Graphics

The Mac is known for its powerful graphics performance. The more hidden tricks power users can find, the more productive they become. Here are some ways to compress, embed, and sharpen your images to perfection in the most popular graphics programs.

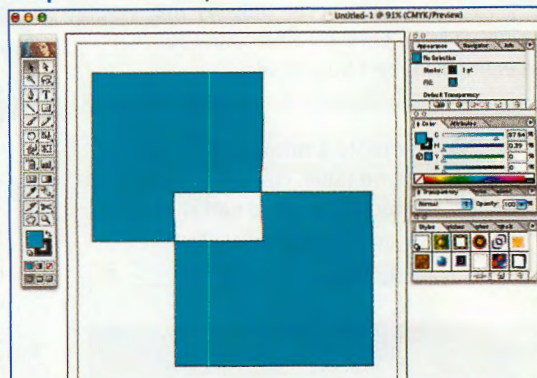
## LAYOUT

**82** When working with Adobe Acrobat, always select Embed All Fonts from Acrobat's Preference menu to **make sure the file looks its best and prints correctly**. To see how the file will look on another machine, select Use Local Fonts from the View menu, which will display the file using only the fonts in the file.

**83** To **speed up working with graphics** in QuarkXPress, place all the pictures as RGB, saved as TIFF with LZW compression to keep them nice and small. When the job is ready to go to press, change them all to CMYK and save them as TIFF or EPS.

## ADOBE ILLUSTRATOR

**84** Pressing Option while clicking a compound shape mode (such as Add, Subtract, Intersect, or Exclude) **creates and expands a compound shape** all in one step.



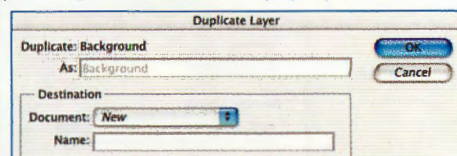
**Make compound shapes quickly in Adobe Illustrator by holding down the Option key.**

## ADOBE PHOTOSHOP

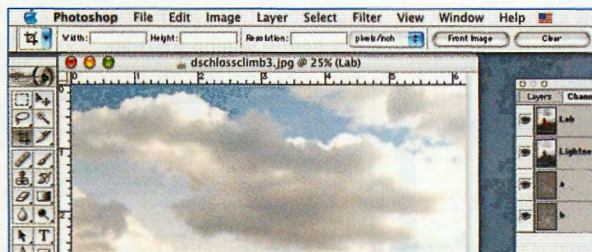
**85** The best way to **sharpen an image in Photoshop** (especially a scanned image or digital photo) is with the Unsharp Mask command in the Filter menu. Never ever sharpen with the Sharpen or Sharpen Edges command unless your final output is a low-resolution Web image. Those two commands introduce very harsh artifacts into an image.

**86** Want to **create a new document from a layer** in Photoshop? Choose Duplicate Layer from the Layer palette's fly-out tab. In the dialog box that pops up, change the Destination pop-up from the name of the current document to New.

**Turn a layer into a new document with the Duplicate Layer command.**



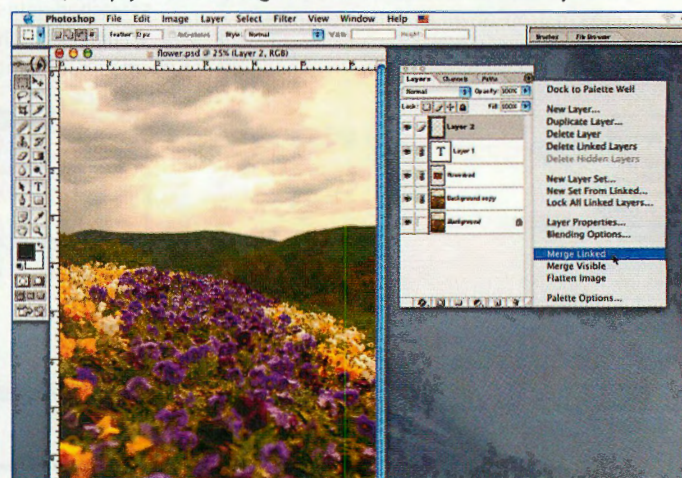
**87** It's good to **avoid sharpening in RGB mode**, as any sharpening you do blurs the colors as well as the detail. Go to Image > Mode > Lab Color, which is just another way of dealing with the same information. In the Channels palette, click the Lightness channel and apply Unsharp Mask. This way Photoshop applies the sharpening only to an image's data channel, not to its color information, resulting in a sharper picture. Convert back to RGB when you're done.



**Sharpening a picture in Lab mode prevents unwanted color blurring.**

**88** In Adobe Photoshop 7, a quick key command for **opening the File Browser** is to press Command-Shift-O.

**89** To **make a single layer containing elements of other separate layers** (when compositing, for example), don't bother duplicating and merging. Simply create a new layer to hold the combined elements, and make sure that layer is active by clicking it. Next, click the little box next to each layer's thumbnail so that a small link icon appears. From the Layers palette's fly-out menu, simply choose Merge Linked to combine all the layers.



**Easily combine multiple layers in Photoshop with the Merge Linked command.**

**90** Everyone knows that Command-Z undoes the last action. In Photoshop, repeatedly pressing Command-Z undoes and redoes the last action. If you'd like to **step back through your actions** instead (in other words, undo a series of events) press Command-Option-Z. Each time you press this combination, another action will disappear.



# Palm

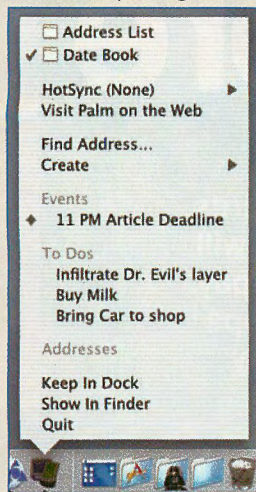
Here are some ways to get the most out of the very simple—but very free and easy Palm Desktop app.

91-93

- 91** Maximize Palm Desktop's usefulness by hiding the application instead of quitting it when you don't need

it onscreen. Clicking and holding down its Dock icon then provides **instant access to the day's events and to-dos**, as well as the ability to add new events and perform a search. This feature is available only while the application is running.

Use the Palm Desktop Dock icon to keep tabs on your appointments and to-dos.



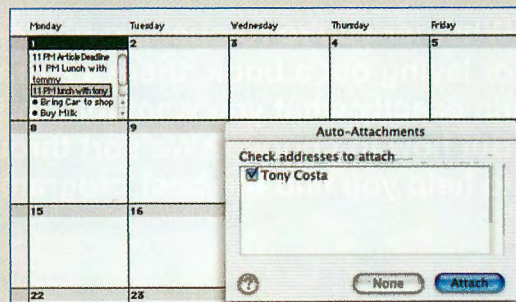
92

Palm Desktop supports the vCard and vCal formats, as does the Mac OS X Mail app, OS X Address Book, and Microsoft Entourage. These formats have cross-platform support. You can **mail vCard and vCal events to Mac and PC users**, as well as import them directly into PIM applications. Entourage even lets you turn the vCard and vCal information into address-book entries and calendar events. Simply drag a contact or calendar event from the Palm Desktop application to the desktop, where it'll appear as a .vcf (contact) or .vcs (event) file.

93

Create a linked event in Palm Desktop by including the name of the person you're meeting in the event's name. Type something like "Lunch with Steve" (a common event that fills up *our* calendars), and the program will look for contacts named Steve. In the calendar view, you can then **access the contact's phone number** or other information by clicking the paper-clip icon that appears in the Date Book view.

Palm Desktop's Linked Events makes it easy to look up contact information directly from within an event.



# Web Sites

When it comes to information about the Mac, nothing beats a trip to the Internet. There you'll find sites with tips, fixes, and more customization options than a tattoo parlor in Los Angeles.

- 95** **Mac OS X Hints** ([www.macosxhints.com](http://www.macosxhints.com))—This site reveals **every nook and cranny** of the latest version of the Macintosh operating system. You'll find more good tips posted here on a regular basis than anywhere else on the Net.

- 96** **Xicons.com** (<http://xicons.mactnn.com>)—Holy pixels, Batman, this site has about **5,000 icons** in hundreds of searchable sets.

- 97** **MacInTouch** ([www.macintouch.com](http://www.macintouch.com)) and **MacFixIt** ([www.macfixit.com](http://www.macfixit.com))—**If it's broken, these guys will likely know why**—and how to fix it.

- 98** **MacSlash** (<http://macslash.org>)—Modeled on the open-source Slashdot, MacSlash offers **news for the nerdy Mac geek** in all of us.

94

**ResExcellence** ([www.resexcellence.com](http://www.resexcellence.com))—**Desktops, icons, hacks, skins—even OS X Dock poofs**,

for chrissakes! Where else can you find dozens of replacements for things like the boot pane (our favorite: "OS X, Because Windows Just Sucks"), the log-in pane, and the Dock?

94-98

# Ergonomics

Bad posture and a bad ergonomic setup can lead to back problems, repetitive strain injuries, and an unhealthy accumulation of pizza-delivery boxes. When spending lots of time in front of your Mac, follow these guidelines.

99

Wrists should be **straight and horizontal to the work surface**, and not leaning on anything (like the edge of a PowerBook). Arms should hang loosely at your sides when at rest, and should form a right angle during typing.

100

The monitor should be at **eye level or slightly lower**, and between 15 and 32 inches from your eyes. Set up the screen so you don't get any reflections. Use a document holder to keep the screen and papers at the same distance.

101

**Posture is of prime importance.** Feet should be flat on the floor (or use a footrest if your feet are dangling). And a good chair is pivotal. Sit against the backrest so that it supports the curve of your back.

David Schloss is a technology journalist who has recently written pieces such as "101 Printer Tips," "101 Monitor Tips," "101 Getting-Out-of-Work-Early Tips," and "101 Ice-Cream-Eating Tips." Representative ice-cream tip? Avoid meat-flavored varieties.



# Graphics Apps Galore

Whether you're retouching photos, making holiday cards, or laying out a book, there's a graphics program that will do exactly what you want for a price you're willing to pay. But how to choose? We sort through more than 20 apps to help you find the best program your money can buy.



## Buy a Mac. Be an artist. It's that simple.

Computer graphics used to be the domain of power designers with big enough budgets to afford the holy trinity of Adobe Photoshop, Quark's QuarkXPress, and Adobe Illustrator. These days, a bumper crop of applications is popping up for all levels of designers—at prices that won't exceed your credit limit.

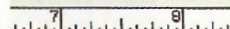
But which app is right for you?

We help you figure it out. We sort through 25 photo-editing, illustration, painting, and page-layout products and all-in-one graphics suites—all with vastly different tools and prices. If you still can't decide, use the chart "Which App's For You?" on p38 to find the graphics program with all the features you need to bring out your inner artist.

**by Narasu Rebbapragada**



Trials of Canvas 8,  
FreeHand 10, InDesign 2.0,  
PhotoStudio 4.0,  
Stone Studio, and  
TIFFany 3.5.6; tryouts  
of Illustrator 10 and  
PageMaker 7.0.1;  
plus GraphicConverter 4.4.3  
and PixelNance 1.5.9





# Photo Editing

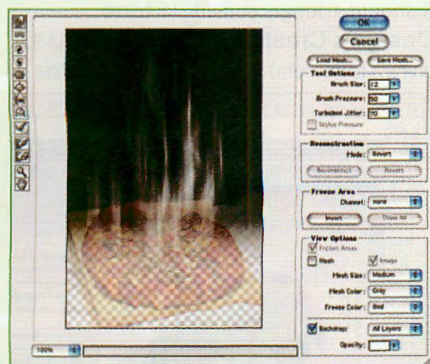
There's no shortage of image-editing apps—and some won't cost you a dime.

The growing popularity of digital photography has spawned a full range of photo-editing applications. Often

referred to as bitmap- or raster-image editors, these applications can crop unwanted areas, clean up color casts, mask backgrounds, and add fine-art flair to your pictures.

## HIGH-END APPS

The undisputed leader of the pack is **Adobe Photoshop** (\$609, [www.adobe.com](http://www.adobe.com)). If you've got the cash, you can't go wrong with Photoshop's full range of professional editing tools, brushes, and filters, all packed into an intuitive palette-based interface. Photoshop is also the best-rounded image editor, with text, vector-drawing, and fine-art brush tools, which fall outside the traditional photo-editing arena.



**Adobe's Photoshop** is hands-down the industry's finest image editor, with pixel-editing, special-effects, and painting tools.

If you want to do only image editing, **Caffeine Software's TIFFany** (\$222 for basic and \$444 for professional, [www.caffeinesoft.com](http://www.caffeinesoft.com)) is a good alternative to Photoshop. A Cocoa application for Mac OS X only, TIFFany has 500 actions for altering images and advanced image-editing options comparable to those in Photoshop, including masking and channels (NASA even used TIFFany for the Hubble Space Telescope Project). While TIFFany excels in precision image editing, stick with Photoshop for a more mainstream interface. TIFFany's interface is based on actions, not tools, so you can choose an action (like Brightness +20% or Less Magenta) from an Action catalog and apply it to your image with a brush.

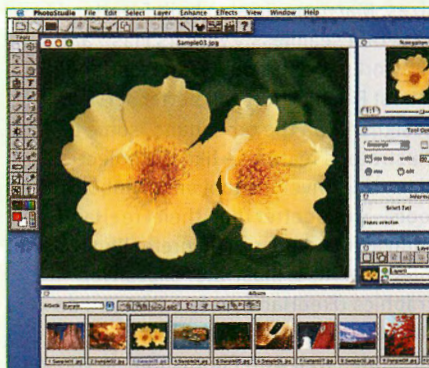


**Caffeine Software's TIFFany** packs a pro-level image editor in a Cocoa app.

## MIDRANGE APPS

The best choice for advanced photo-editing features on the cheap is **Adobe Photoshop Elements** (\$99). It shares many of its professional counterpart's tools, effects, and filters, and adds consumer-friendly features like a red-eye reduction tool, a Photo Merge command for stitching images together, and an image browser (Photoshop 7 now has this, too). The one thing Elements lacks is a CMYK color mode, which is crucial for print design professionals. However, if you are content to output to an inkjet, Elements offers many of Photoshop's features at about a sixth of the price.

**ArcSoft's PhotoStudio** (\$99, [www.arcsoft.com](http://www.arcsoft.com)) is the other midrange choice with a full range of photo-editing features, including layers, transparency support, text tools, red-eye reduction, sharpen, masking, and color balance. We recommend Photoshop Elements over PhotoStudio because of its more-intuitive interface, deeper tools, and larger number of filters and special effects. And although PhotoStudio lets you convert an RGB image to CMYK, and edit it as such, you can't save it as a CMYK file—or, for that matter, open a CMYK image. Weird. PhotoStudio comes bundled with Epson printers, Sony cameras, and Canon scanners, among many other peripherals.

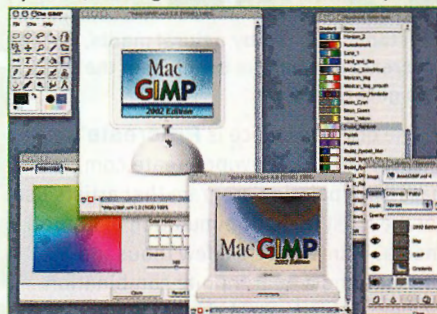


You might already have ArcSoft's **PhotoStudio** bundled with your printer, scanner, or digital camera.

## LOW-COST APPS

Even under \$50, some options offer good, clean photo-editing tools. **Lemke Software's GraphicConverter** (\$35, [www.lemkesoft.com](http://www.lemkesoft.com)) is one of our favorites. The strength of this long-lived shareware application is its ability to import more than 100 graphics file formats and export more than 60. But it also crops, rotates, and scales images; adjusts color, brightness, red-eye, and sharpness; and even creates masks. Not a bad haul for the price.

One new—and very cheap—option (not available until November 15) is **Roxio PhotoSuite** (\$29, [www.roxio.com](http://www.roxio.com)), a former PC-only photo-editing app. PhotoSuite for Mac will import your pictures, preview them in a browser, and burn them to CD via Roxio's Toast. PhotoSuite offers tons of print layout options; editing features such as red-eye



reduction, sharpen and blur, and saturation; filters such as emboss and warp; basic text features; as well as layers and edge fading.

This one's for all of you Open Source fanatics: **MacGIMP Project's MacGIMP 2002** (\$29.95, [www.macgimp.org](http://www.macgimp.org)). Developers released the original GIMP under the GNU General Public License (GPL) for Unix. Since then, another group of developers called MacGIMP has ported GIMP to the Mac. Most GIMP users are creating Web graphics and scripts for batch-processing graphics. It supports 35 file formats and has basic photo-editing, illustration, and painting tools. MacGIMP 2002, which should be available by the time you read this, will include more than 120 filters.

Even cashless artists have options. **Apple's iPhoto** (free, [www.apple.com](http://www.apple.com)) for Mac OS X comes with very basic photo-editing tools, robust image-management features, and options for professional printing. **Caffeine Software's PixelNance** (free), also for Mac OS X only, gives you more editing tools than iPhoto—like levels, colors, and sharpness controls—but fewer printing options.

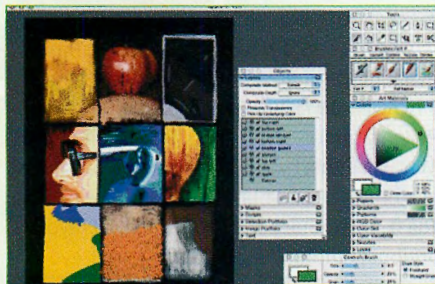


# Painting

If you have a brush fetish, consider one of these artistic apps.

While Van Gogh might roll over in his grave at the thought of you re-creating *Starry Night* with software,

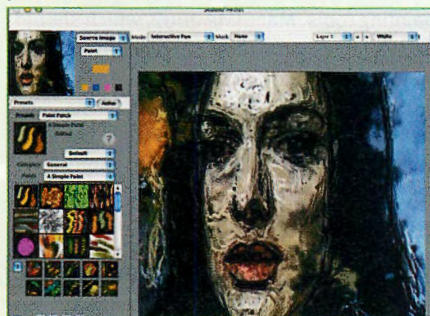
several apps make painting a viable art form on the Macintosh.



With tools inspired by natural media, Procreate's Painter is the closest the Mac gets to fine art.

The obvious choice is **Procreate's Painter** (\$479, [www.procreate.com](http://www.procreate.com)), a hard-core painting program that artists use for the most realistic simulation of natural media. Painter offers a few thousand brushes and a near-infinite combination of media, brush, stroke, and canvas styles. Although it doesn't offer direct CMYK support, Painter simulates what CMYK output would look like. It can import Photoshop files with layers intact, and it has basic Web-animation and image-slicing capabilities.

If painting on a blank canvas intimidates you, **Synthetik Software's Studio Artist** (\$379, [www.synthetik.com](http://www.synthetik.com)) is a better option. Oddly enough, Studio Artist applies the concept of a music synthesizer to graphics by analyzing a piece of art (for example, an old photograph) and letting you apply different paint styles (patches) to it. With these patches, you can re-create the image as if you were drawing with pen, pencil, watercolor, or other media. When



Synthetik Software's Studio Artist lets you paint a photograph—no skill required.

you run a mouse or pen to run freely over your canvas, Studio Artist paints the image in the style you've chosen. Studio Artist isn't only for painters. Video professionals also use it for rotoscoping, the process of painting on top of video.

Also, don't count out **Adobe Photoshop 7** and its brand-new brush engine. While Photoshop is not meant as a substitute for Painter or Studio Artist, its brush palette gives you some control over the size, spacing, tip shape, color dynamics, and textures of sampled brushes to mimic the feeling of natural media. While you can create a work of fine art using Photoshop 7, it's better for adding fine-art touches to existing raster images.

# Illustration

If you're looking for a drawing application, you have a few great options.

Vector-drawing applications are a different animal from image (bitmap) editors.

Rather than

treating images as a series of pixels, they treat them as a collection of objects, whose lines and properties you can mold to your liking.

At the top of the heap are **Adobe Illustrator** (\$399) and **Macromedia FreeHand** (\$399, [www.macromedia.com](http://www.macromedia.com)). Both of these powerful vector-drawing programs have grown to include image-editing, page-layout, and Web-graphics features.

While we aimed to figure out which of the two would better suit what kind of user, in the end the comparison was a wash. On the one hand, FreeHand has a few more page-layout tools: paragraph styles, master pages, and multiple page sizes. Macromedia also built FreeHand to integrate seamlessly with its Flash and Fireworks Web products, so FreeHand's robust Flash export will better serve Web designers. On the other hand, some of Illustrator's features—like the object-distorting Envelope tool and Symbol tools—work better than their FreeHand equivalents, and we still prefer Illustrator's interface. Also, Illustrator slices Web graphics (FreeHand prefers that you do so in Macromedia's Fireworks), and it integrates well with Photoshop, so you get to use Photoshop filters.

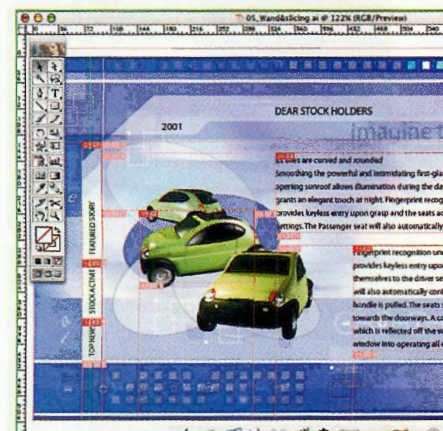
**Corel's CorelDraw** (\$399, [www.corel.com](http://www.corel.com); also available as part of CorelDraw



With design favorites like the Symbol Library, CorelDraw is a worthy competitor to FreeHand and Illustrator.

Graphics Suite 11, \$529) offers a feature set comparable to those of FreeHand and Illustrator at a slightly lower price. The trade-off is its quirky interface. Plus, since this program is less popular in the United States, prepress bureaus may not accept native CorelDraw files as readily as they do Illustrator and FreeHand files. (CorelDraw's robust PDF-creation tools make up for this problem.) Like FreeHand, CorelDraw has enough page-design features to lay out business cards, stationery, and envelopes on the same page.

Home hobbyists using Mac OS X should strongly consider **Stone Design's Create for Mac OS X** (\$149, [www.stone.com](http://www.stone.com)). This economical Cocoa



Illustrator's drawing and layout tools use the familiar Adobe interface many designers love.

application combines vector-illustration tools (like Bézier curves and gradients) with layout features (like master pages and text controls), so you can have fun designing graphics with vivid colors and fills. You'll encounter somewhat of a learning curve when you first use Create, since its interface is vastly different from those of traditional palette-based graphics applications. For example, to convert an object to a JPEG, you select the word **JPEG** from a pop-up menu and drag it to your desktop.



# Layout

There's a variety of apps you can use to layout cards, newsletters, magazines, and books.

To print brochures, newsletters, and holiday cards, you used to need thousands of dollars' worth of software,

a prepress bureau, and a professional print house. Now all you need is \$79 for basic software (AppleWorks) and an inkjet printer (provided you're not engaged in professional publishing).

At the top of the page-layout ladder stand **Quark's QuarkXPress** (\$899, [www.quark.com](http://www.quark.com)) and **Adobe InDesign** (\$699). While Quark is still the industry leader for professional design, InDesign is quickly gaining ground. In comparing the latest versions of both apps, you won't find any clear winner since they both have all the major professional features, like advanced typographical tools, layout commands, color palettes, picture-import features (including clipping paths), table creation, and support for layers. Get QuarkXPress if you work a lot with other designers who use it (InDesign can't import QuarkXPress 5 files yet), and if you want to take advantage of Quark's new Web tools for drop-down lists, rollovers, and image maps. Otherwise get InDesign. It supports transparency, has even fancier type controls such as hanging punctuation, lets you import Word and Excel tables, and is \$200 cheaper.

If you're not a professional designer, Quark and InDesign are overkill. Start your quest for page-layout software with **Adobe PageMaker** (\$499). Targeting do-it-yourself types looking to create four-page brochures or flyers, PageMaker is quite full featured, though it lacks some of InDesign's advanced illustration features, such as support for transparency, Bézier curves, gradients, and advanced table-making tools.



QuarkXPress is still the industry-standard page-layout software.

Even word-processing programs are becoming page-layout tools in their own right. **Microsoft Word** (\$399, [www.microsoft.com/mac](http://www.microsoft.com/mac)) is adequate if all you need to do is make brochures, newsletters, menus, or other text-heavy documents that don't require a precise or complicated layout. Word comes with crop and red-eye reduction tools, gradient, and limited curve-editing tools for importing, editing, and placing graphics; however, it's a little trickier to place those images in an exact location than it is with a dedicated page-layout app like PageMaker. Still, with headers and footers you can create templates for flowing text through longer documents. You won't be able to take your word document to a professional printer, however, since Word doesn't support CMYK separations.



With support for transparency and tables imported from Word and Excel, Adobe's InDesign is sure to find favor with many graphic designers.

The best deal for the beginning home publisher is **AppleWorks** (\$79), Apple's very own word-processing and page-layout tool. If you bought an iMac, you probably have a copy sitting on your hard drive right now. While AppleWorks doesn't feature CMYK support for professional output, it has basic text-wrapping, text-formatting, table-creation, and image-insert capabilities for creating advertisements, brochures, and newsletters.

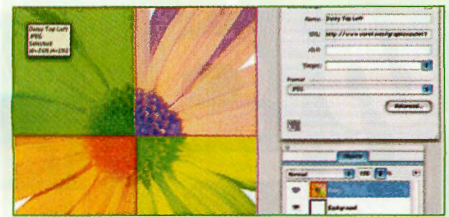
## Graphics Suites

When you need a little of everything, one of these suites might be the answer.

hungry for more than one type of graphics app, consider a suite or bundle.

For instance, Adobe lets you save about \$950 off the retail prices of Photoshop, Illustrator, InDesign, and the PDF-creation

Remember that old adage, "No one can eat just one"? (OK, so it was a potato-chip commercial.) If you find yourself



With Web and print options, Corel's Photo-Paint is a competitive second best to Photoshop.

tool Acrobat with **Adobe Design Collection** (\$999.95)—an artist's dream. Corel offers a comparable package in its **CorelDraw Graphics Suite 11** (\$529), which includes CorelDraw, Photo-Paint (a robust image-editing application), and RAVE (a Flash-style program for animating Web graphics). The main difference is that Adobe includes page-layout software, while Corel offers a Web-animation app.

The value-conscious designer who doesn't need to delve too deeply into any one area should consider **Deneba's Canvas 8 Professional Edition** (\$399.95, [www.deneba.com](http://www.deneba.com)), which integrates vector-drawing, bitmap-editing, page-layout, and even 2D-animation tools in one application. Canvas's SpriteEffects feature applies Photoshop-esque effects like motion blur and emboss to both bitmap and vector objects. By the way, if you don't need CMYK color support or professional PDF output, **Deneba's Canvas 7 Standard Edition** (\$99.95) is a light version of Canvas 7 that has most of the same creation tools as Canvas 8.

The award for best value among hobbyist apps goes hands-down to **Stone Design's Stone Studio** (\$299), built around the Create drawing application (see p36). Stone Studio also comes with six other niche applications: Pstall for converting PostScript files to PDF, PhotoToWeb for publishing Web albums, Time = Money for time management and invoicing, Pack up and Go for compressing files, Slice and Dice for slicing Web graphics, and GIFFun for animated GIFs. Stone Studio is light on photo-editing and painting features, so graphics professionals will find it limited, but home enthusiasts should consider it.






Deneba's Canvas combines 2D and 3D drawing, image-editing, and even motion-graphics tools.



# Graphics Wrap-Up

If no single graphics program will meet all your needs, you'll need to find a combination that works for you. Here's a rundown of all of the apps in this article, along with a breakdown of which features they support and which they don't.

## WHICH APP'S FOR YOU?

**KEY:**  
 Yes  
 No  
 Limited

Type	Name	Company	Price	Contact Info	Mac OS X	CMYK Color	Vector-Drawing Tools	Pixel-Editing Tools
Photo Editing	GraphicConverter	Lemke Software	\$35.00	www.lemkesoft.com				
	iPhoto	Apple	Free	www.apple.com	1			
	MacGIMP	MacGIMP Project	\$29.95	www.macgimp.org				
	Photoshop	Adobe	\$609.00	www.adobe.com				
	Photoshop Elements	Adobe	\$99.00	www.adobe.com				
	PhotoStudio	ArcSoft	\$99.00	www.arcsoft.com				
	PhotoSuite	Roxio	\$29.95	www.roxio.com				
	PixelNhanse	Caffeine Software	Free	www.caffeinesoft.com	1			
	TIFFany	Caffeine Software	1 \$444.00	www.caffeinesoft.com	1			
Illustration	CorelDraw	Corel	\$399.00	www.corel.com	1			
	Create	Stone Design	\$149.00	www.stone.com	1			
	FreeHand	Macromedia	\$399.00	www.macromedia.com				
	Illustrator	Adobe	\$399.00	www.adobe.com				
Painting	Painter	Procreate	\$479.00	www.procreate.com				
	Studio Artist	Synthetik Software	\$379.00	www.synthetik.com				
Layout	AppleWorks	Apple	\$79.00	www.apple.com				
	InDesign	Adobe	\$699.00	www.adobe.com				
	PageMaker	Adobe	\$499.00	www.adobe.com				
	QuarkXpress	Quark	\$899.00	www.quark.com				
	Word	Microsoft	\$399.00	www.mactopia.com				
All-In-One	Canvas 7 Standard Edition	Deneba	\$99.95	www.deneba.com				
	Canvas 8 Professional Edition	Deneba	\$399.95	www.deneba.com				
Graphics Suites	CorelDraw Graphics Suite 5	Corel	\$529.00	www.corel.com	1			
	Design Collection	Adobe	\$999.95	www.adobe.com				
	Stone Studio	Stone Design	\$299.00	www.stone.com	1			

## GLOSSARY

### Align and Distribute

This feature, usually a menu command, lets you evenly line up the top, bottom, center, left, and right positions of a group of objects.

### Animated GIFs

Animated GIFs are those sometimes annoying spinning Web graphics.

### Bézier

A Bézier is a type of curve defined by two endpoints defined by two endpoints (or anchors) and a set of handles for adjusting the curvature. You can create complex line drawings with a series of Bézier curves.

### Brush Effects

Brush effects let you draw with a variety of styles—including charcoal, pen, pencil, and other artistic media.

### Brush Tools

Brushes let you paint lines of color in various widths, shapes, and weights.

### CMYK Color

CMYK stands for cyan, magenta, yellow, and black—the four colors traditionally used for professional process printing. If you want to send your designs to a professional printer, you'll need this capability.

### Color Balance

Color balance lets you change the mixtures of colors in an image.

### Crop

A crop tool or command trims the edges of an image.

### Curves

Curves are a high-end graphical way to make precise modifications to a bitmap image's color and brightness. If you're not a professional, you can probably do without them.

### Gradients

Gradients (sometimes called blends) blend one color into another, typically in either a linear or a radial progression.

### Image Slicing

If you're creating large Web graphics, you'll want to slice them so they'll load in pieces, speeding up download times for your viewers.

### Layers

Layers are crucial in mid- and high-end graphics applications. They let you put objects in their own transparent environments so that you can overlap objects, hide them, and change their opacity for a myriad of artistic purposes.

### Levels

Levels allow you to adjust the color balance of an image using sliders.

### Masking

Masking allows you to hide certain areas of your images (for instance, you might mask out a background behind your subject).

### Master Pages

Master pages contain recurring elements of pages, such as page numbers, headers, footers, folios, and repeated graphic elements.

### Navigation Templates

If you're making a navigation bar for a Web site, some programs have templates so you don't have to start from scratch.

### Opacity

Opacity is the degree

of an object or a layer's transparency; 1 percent opacity is nearly transparent, and 100 percent opacity is a solid color.

### Paper Styles

Some programs let you choose a type of fine-art paper (rice paper, raw silk, cold-press watercolor, and so forth) on which to draw. The brushes then simulate the effect of drawing on that type of paper.

### Paragraph Styles

Another layout basic, styles let you save a paragraph's text attributes (font, size, color, and so on) so you can apply them to other paragraphs.



- 1 OS X only.
- 2 Need bundled app, ImageReady.
- 3 OS 9 only.
- 4 Word supports their use but can't create them.
- 5 Includes CorelDraw, Photo-Paint, and RAVE; only CorelDraw is available separately.
- 6 Yes on objects
- 7 \$222 (basic), \$444 (pro)

**MacAddict** news editor Narasu Rebbapragada wishes she'd had some of these apps back when she did design work. Then she could've taken a lot more vacation.





#### HOW TO FIX BLINKS

Use the control of your Wacom pen to seamlessly fix the blink by bringing in a pair of open eyes from another digital photo.

#### HAVE FUN WITH SIGNS

Then have some fun turning the awkward sign placement in the background into something special.

#### STOP BY...

...our website to see a short video of this fun fix in action. While you're there, request a FREE Photo Fun CD.



visit  
[www.macphotofun.com](http://www.macphotofun.com)

call  
800-922-1247



Turn on Photoshop's power –  
Intuos2 starts at \$199



**graphire2** BY **WACOM**



Create directly on screen –  
Cintiq starts at \$1899



#### PATENTED PEN

Pressure-sensitive for control, with a built-in eraser for easy fixes. There's no cord to tangle, no batteries to buy – ever. And it works with any software a mouse will.

#### CORDLESS MOUSE



No ball to clean, no cord to tangle. And no batteries to buy – ever.

#### FREE SOFTWARE

Comes with Adobe Photoshop LE & Painter Classic.



## SHE'LL LOVE HOW YOU CAPTURED THE MOMENT.

**Have fun with your digital photos.** The Graphire2 gives you the control you need to quickly & easily edit your digital photos. At just \$99<sup>95</sup>, it even comes with great software – Photoshop LE and Painter Classic. Have fun with Graphire2, and join more than 2,000,000 satisfied Wacom tablet users.



## ThisMonth:

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### PLUS:

### TheHotList

- 56 The best of the best from recent reviews.

## MacAddict RATINGS

MacAddict RATED  
●●●●●  
**AWESOME**

You'll be blown away.

MacAddict RATED  
●●●●○  
**GREAT**

You'll be impressed.

MacAddict RATED  
●●●●○  
**SOLID**

You'll be satisfied.

MacAddict RATED  
●●○○○  
**SO-SO**

You'll be disappointed.

MacAddict RATED  
●○○○○  
**LOUSY**

You'll be pissed off.



If we were shopping for this type of product, this is the one we'd buy.



Compatible with Mac OS X or later.

Compatible with Mac OS 9 or earlier.

We always thought the old "a picture is worth a thousand words" deal was a bargain, but then we got a hold of Epson's Stylus Photo 2200 (shown here). With seven colors of ink delivered in 4-picoliter droplets, the 2200 raises the bar for prosumer inkjets, cranking out beautiful prints worth at least 1,750 words apiece. Other good news this month: Kensington unleashes another mighty mouse, and Medal of Honor: Allied Assault kicked our butts and made us shout, "Thank you, sir, may I have another!" On the flip side, Beachhead 2002 reminds us that war is still hell, as is dealing with Microtek's scanner driver. Coming soon: We'll stress-test the biggest of Apple's big irons—the Xserve—and take the new 20GB iPod's solid-state jog wheel for a spin.



# Epson Stylus Photo 2200

COLOR PHOTO PRINTER

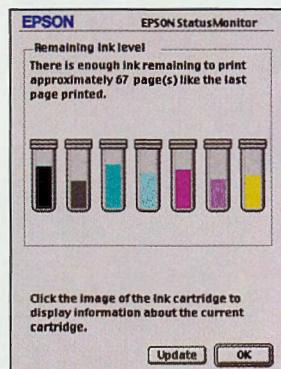


ouch—700 big ones for a printer?! Does it come with a camera and lobster dinner, too? While we've often applauded Epson's photo-printer line, we've never felt a need or desire to replace our reliable but old Epson Stylus Photo 875. So why are we ready to pony up the cash for this substantial monster? Simple. We printed a photo, and its awesome quality made our jaws drop.

## It produced absolutely stunning prints.

The Photo 2200 is the best consumer-level photo printer we've seen in some time. It produced absolutely stunning prints, with rich and accurate colors, vast tonal range, and undetectable ink droplets (dispensed at the highest 2,880-by-1,440-dpi resolution). But what really got our tongues wagging was its fantastic reproduction of faint detail in an image's shadowed and dark areas, where other photo printers print solid black. Credit this to the 2200's use of seven-color UltraChrome pigment inks instead of the standard six-color inks you'll find in most photo printers.

The magnificent seven—CcMmYKk (cyan, light cyan, magenta, light magenta, yellow, photo black, and light black)—gave our prints consistent color vibrancy and gamut, except



The printer driver gives you a heads-up on how much ink you've got left and how many more prints it'll churn out.

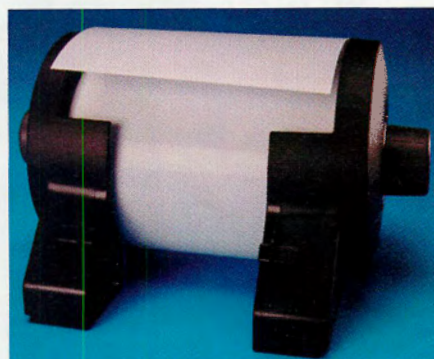


The Stylus Photo 2200's seven ink colors produce high-quality prints quickly and quietly.

for prints on plain paper, where colors were subdued. You can swap the photo-black ink cartridge for the optional matte-black ink (beautiful!) for better quality on fine art paper. The inks are also waterproof (we spit-polished one photo and the color didn't budge), and efficient—our cartridges were still belting out pics after printing 50 or so 8 by 10s. The printer also supports Print Image Matching (PIM) technology for color consistency with supported digital cameras (listed on Epson's Web site).

The freakishly quiet 2200 accepts a great range of paper sizes and media, and comes with an automatic roll-paper cutter and paper catch. You can feed in stacks of media via the paper tray (from envelopes up to 13-by-19-inch paper sheets), process thicker paper via the manual flat feed, or mount paper rolls 4, 8.3, or 13 inches wide and have the printer automatically print and cut borderless photos. Though it took some fussing and four print passes to get the cutting alignment perfect, we're happy to leave our scissor-hack job behind.

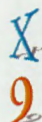
With photos, print times were reasonably fast, though we consumed an entire burrito waiting for a 2,880-dpi, 13-by-19-inch photo (you should enable background printing to prevent a lockout). With a paper roll installed, we queued a dozen images in the driver and walked away, letting the 2200 print, cut, and drop a stack of finished prints in the paper



The 2200 can even accommodate roll paper.

catch. When we printed text, characters showed a light, stubby 5 o'clock shadow (as is the case with most photo printers). Although the edges weren't laser crisp, we could see the fine detail in our filigree fonts, and text taken down to 5 points remained clear.

The 2200's only downside lies in its Mac OS X printer driver, which imposes a number of limitations (this is also true for other printers—thanks, Apple). OS X disables some features, like paper-roll and cutter support, ICC-profile printer drivers, and ink-cartridge interchangeability. At press time, Apple hadn't confirmed when it would resolve these driver difficulties, but it plans to fix them with a future OS X release. Still, driver be damned—we'll happily boot into OS 9 to use this printer any day.—Kris Fong



**COMPANY:** Epson  
**CONTACT:** 800-463-7766,  
www.epson.com  
**PRICE:** \$699 (SRP)

**REQUIREMENTS:** FireWire or  
USB-equipped Power Mac, Mac OS  
8.6–9.x or OS X 10.1 or later

**GOOD NEWS:** Superb photo quality. Insanely intense shadow detail.  
Individual ink cartridges excel in printing marathons.  
**BAD NEWS:** The initial tug at your wallet is painful. OS X driver  
should play on par with its Classic buddy. USB cable not included.

**MacAddict RATED**  
●●●●●  
**AWESOME**



# Medal of Honor: Allied Assault

FPS ACTION GAME

Forget the usual array of zombies, goblins, aliens, and creepy monsters. Could anything be more satisfying than blowing away legions of steely-eyed Nazis? Jackbooted Germans are the villains du jour in Medal of Honor: Allied Assault, a stylish World War II first-person shooter with enough fiendish Nazis to keep you pinned down for days.

**Such superb attention to detail makes for truly stiff system requirements.**

Powered by the Quake III engine, Medal is awash with Teuton-bashing action, so smoothly rendered that one forgets from time to time that it's only a game.

With only six major missions, the game may feel short, but that's probably because you're having such fun. Each mission is packed with sundry levels of miniobjectives, each cool enough and varied enough to avoid even a hint of tedium. As Lieutenant Mike Powell, U.S. Ranger and OSS agent, you'll go on search-and-rescue missions, infiltrate a Nazi submarine base, invade a secret Nazi lab, steal a 70-ton prototype tank, and even splash through the harrowing hail of gunfire on the beaches of Normandy



Your company scatters as a Nazi tank rolls in; keep an eye on that medic, as you'll need his services eventually.

as part of the vast D-Day invasion force.

But don't forget: War is hell. Not all of Medal's missions play fair. Just as you're getting the hang of things, you'll encounter a crumbling, bombed-out French village that looks innocently quiet but is chock-full of hidden German snipers. You'll need to use the quick-save feature frequently to get past them. They've taken cover behind walls, shattered windows, and all kinds of debris—and they never miss. They smack you down before you spot them, zeroing in from great distances. The only way to beat them is a repetitious trial-and-error process, saving after each kill, spotting the next bad guy as he guns you down, restarting from your save point and taking him out: saving again, dying again, and so on until, gasp, you clear the village.

Ah, *carpe diem*. In our book, that means carp at least once a day. In addition to the sniper sequence, we have another gripe with this excellent game. The graphics are undeniably gorgeous, with rich textures and wild explosions, but such superb attention to detail makes for truly stiff system requirements. If you want to enjoy Medal to the fullest, you'll need a hefty Mac with the latest bells and whistles. Unfortunately, that's true of many new games these days. One begins to wonder if the gaming industry isn't involved in some wicked conspiracy to keep us buying new equipment every few months.

Even so, once you upgrade your older Mac and get past those pesky snipers, this shooter rocks. Medal of Honor is a surefire classic. You don't want to miss it.—John Lee



Life's a beach takes on a whole new meaning when you're storming Normandy.

## Hit the Beach

After blasting parked Stuka dive-bombers in North Africa, and sabotaging submarines in Norway, you'll join the great D-Day invasion in Normandy. Get ready for a unique gaming experience.

The Omaha Beach landing is a tour de force. You and your comrades will bob shoreward in a Higgins landing craft, heading into the teeth of Nazi guns. Short of the beach, the ramp drops and you're up to your armpits in water. Bullets and artillery shells whiz around you. You'll see fellow soldiers struggle for footing, take hits, and cower behind steel antitank structures. You'll no doubt get hit several times yourself. (A medic up ahead may restore your health—if you last that long.)

When you make it to shore, you'll be assigned further missions, including using a Bangalore torpedo to clear out enemy bunkers and take out machine guns. But the Omaha landing isn't really about fulfilling those late-mission goals. It's about getting to the beach—simple survival.

Ride the waves and give it a try. This slickly designed invasion sequence is worth the price of the game all by itself.

**COMPANY:** Aspyr  
**CONTACT:** 512-708-8100,  
www.aspyr.com  
**PRICE:** \$50 (SRP)

**REQUIREMENTS:** 500MHz G3 or faster,  
Mac OS 9.2 or later, 128MB of RAM  
(256MB for Mac OS X), 16MB of VRAM,  
ATI Rage 128 or nVidia GeForce or later

**GOOD NEWS:** Excellent depth and detail. Convincing atmosphere.  
Nail-biting D-Day mission sequence is truly incredible.

**BAD NEWS:** Even a 500MHz G4 strains under this game's weight.

**MacAddict RATED**  
●●●●●  
**AWESOME**



# iRock 530

## MP3 PLAYER

Ever since Apple released the iPod, we've become extremely jaded when it comes to MP3 players. In a perfect world, they'd all be just like the iPod—except maybe a little smaller, cheaper, and generally less precious for those times when our digital lifestyle encounters more-rugged environs. In that spirit, we find the iRock 530 an excellent choice for a second MP3 player.

The iRock 530 has 128MB of internal memory—enough for more than 2 hours of MP3s—and a slot for SmartMedia cards up to 64MB in size. So it could theoretically match the iPod's 5GB capacity, but at about \$50 per 64MB card, you'd spend nearly \$4,000 on the enterprise. Everything else you need is in the box: AAA battery, CD-ROM with iTunes plug-ins for Mac OS 9 and X, USB cable, detachable wrist strap, and a decent set of earbuds. The manual's not included, but it's available at the iRock Web site (and for the record, we didn't really need it anyway).

### It's an excellent choice for a second MP3 player.

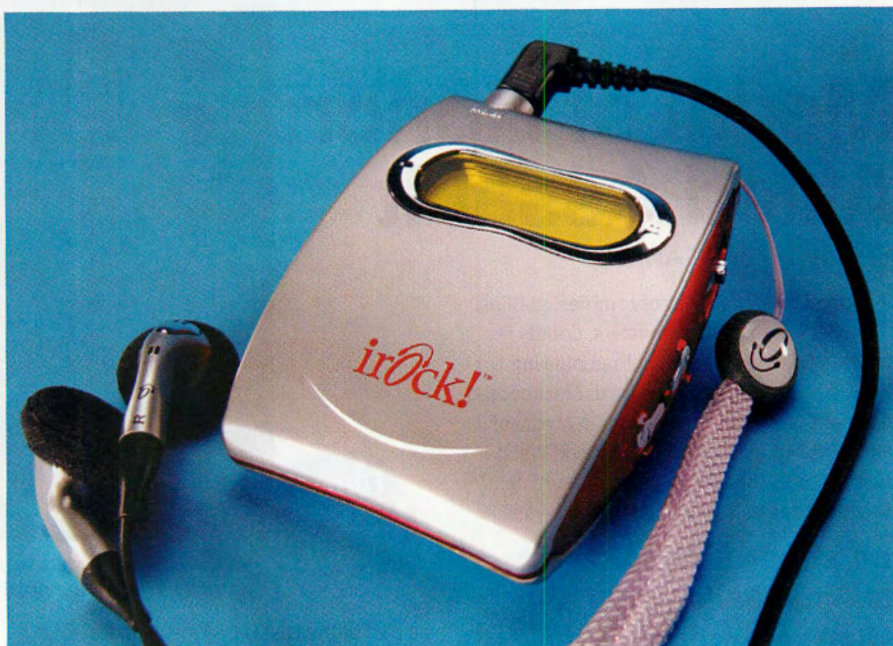
The iRock kept rockin' for the claimed 10 hours (and then some) on one measly AAA battery—this isn't as eco-friendly as the iPod's rechargeable one, but it's much handier at those times when recharging is inconvenient or impossible. The iRock extends battery life by automatically powering down after a minute of inactivity.

## Buh-bye, 'Buds

Commuters and other car slaves know it's not wise to drive wearing headphones, even earbuds. Does this relegate us to the lame old car radio for commutertainment?

The answer is no, thanks to the magic of RF (radio frequency) transmission. Just plug First International's iRock 300W (\$29.99) into any MP3 player's headphone jack; select 88.1, 88.3, 88.5 or 88.7 on the iRock's frequency switch; set your radio receiver accordingly; and you're ready to rock safely in the comfort of your car or within 30 feet of any FM receiver.

Ideal as this arrangement sounds, it has its drawbacks: mainly, that FCC regulations hamstring the signal strength of such devices. On a bad day, outside interference—from low-flying aircraft, the bridge you're crossing, even the MP3 player itself (the 300W's cord helps here)—can distort or completely kill the signal. But on a good day, it's all good.



It's no iPod killer, but the iRock 530 is pretty killer.

The controls are basic and effective. Simple plus (+) and minus (-) buttons control the volume, and a front-and-back jog button navigates through your playlist and the control menus. A Mode button on the other side shuffles those menus, where you can select different EQ settings (Normal, Rock, Classic, Jazz), repeat modes (repeat the current song, all songs, or a random selection), and turn on the Bass Boost. We had almost no trouble navigating the iRock's menus, up until the last menu option—an odd little function that aspiring lip-syncers will appreciate: A-B Repeat lets you select start and end points on a song, and plays the selection repeatedly so you can practice your moves while Britney sings, if that's your thing.

We can live without this feature anyway, but we're a little miffed that we had to go to the iRock Web site to download the (15MB) manual to figure out what it does. Another minor issue is the display's small size; we had trouble seeing some of the tiny words and icons displayed along the top edge.

With Apple's 5GB iPod selling for \$299, a dollar-per-megabyte MP3 player might be a hard sell, but the iRock 530 is a capable little device. At less than half the price, weight, and size (discounting the fact that it has a mere fraction of the capacity) of an iPod, it has its appeal. Your wallet will hurt a lot less if the iRock gets lost or broken during those inevitable high-impact moments in your digital life.—Niko Coucouvanis



Beam your tunes to an FM radio.

**COMPANY:** First International Digital  
**CONTACT:** 847-202-1900, [www.myirock.com](http://www.myirock.com)  
**PRICE:** \$129.99

**REQUIREMENTS:** USB-equipped Mac,  
 Mac OS 9.0.4 or later

**GOOD NEWS:** Small and sleek. Long battery life.  
 Easy to use.  
**BAD NEWS:** It's not an iPod. Small capacity.

**MacAddict RATED**  
 ○○○○○  
**SOLID**



# NetBarrier 10.0.3

## FIREWALL SOFTWARE

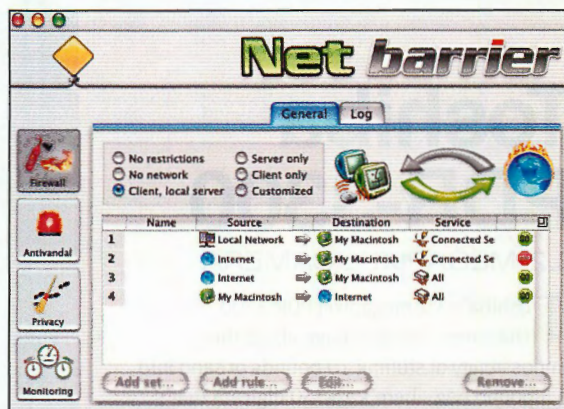
Home networking is great, but it can leave your Mac vulnerable to malicious hacker attacks and pesky prying eyes, especially if you have a DSL or cable connection of the always-on (static IP) variety. A firewall protects your network from outsiders; however, the one built into Mac OS X requires an understanding of Unix commands and the Terminal utility. NetBarrier trades Terminal geekery for point-and-click simplicity, making custom configuration a snap.

NetBarrier works behind the scenes and doesn't affect your Mac's performance. The predefined configurations cover most typical network scenarios, and with the revised Rules Editor you can restrict

access as you see fit (for instance, you can disable AppleShare over AirPort, or allow only local use of instant-messaging services).

When trouble comes a-knocking, NetBarrier can either automatically put the visitor into a Stop List (thereby preventing future access) or prompt you to decide whether to trust the offender. The Data filter allows you to specify text strings (such as credit-card numbers) to protect, then NetBarrier refuses to let that sensitive data leave your computer unencrypted.

The Privacy pane offers the most noticeable new functionality. The Banner tab prevents your Web browser from loading advertisements based upon common keywords or host names.



NetBarrier puts a friendly face on its personal firewall, unlike the one built into Mac OS X.

It's easily customizable, but doesn't block pop-up ads. The Surf tab can prevent cookies and other identifying information from leaving your Mac.

If you used an earlier version of NetBarrier in Mac OS 8 or 9 and were satisfied with it, you'll want to upgrade to the native version for Mac OS X.—Owen W. Linzmayer



**COMPANY:** Intego  
**CONTACT:** 305-868-7920, [www.intego.com](http://www.intego.com)  
**PRICE:** \$59.95 (SRP), \$39.95 (upgrade from 2.x), \$49.95 (upgrade from 1.x)

**REQUIREMENTS:** Mac OS 10.1.1 or later, 10MB of free hard disk space, 800 by 600 or larger display

**GOOD NEWS:** Friendly GUI firewall for OS X. NetBarrier 2.2 included for Mac OS 8.1–9.x.  
**BAD NEWS:** New features aren't particularly compelling.

**MacAddict RATED**  
SOLID

**IOGEAR**

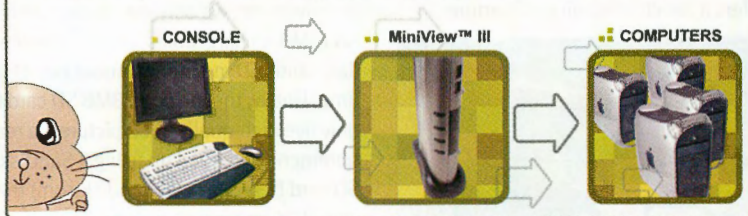


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# Toshiba PDR-3300

## 3.2-MEGAPIXEL CAMERA

Toshiba's 3.2-megapixel PDR-3300 challenges the old adage about the impossibility of stuffing 10 pounds of sand into a 5-pound bag—here's a \$350 digicam that's loaded with features usually found only in cameras twice its price.

Dressed in natty matte black, the PDR-3300 has a thumb-activated mechanical lens cover and a separate power switch. Toshiba wisely chose to use a Canon lens that zooms smoothly from 35mm to 100mm (in 35mm-equivalent terms) and produces tack-sharp images.

The PDR-3300's controls are logically laid out, and instead of the usual button-heavy interface, the camera employs a mini joystick that makes menu navigation a breeze. It's intuitive and fast and sure beats lumbering around the usual four-way rocker switch with your thumb. Many items you'd normally set once and forget (like resolution, compression, and screen brightness) still get their own dedicated menu page, but even then the joystick lets you fly through them.

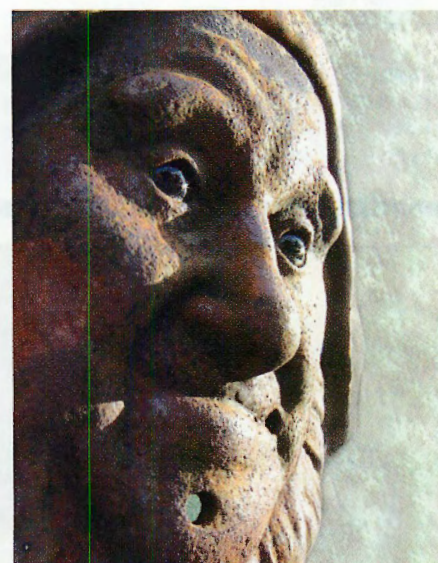
Twirl the PDR-3300's mode dial to Program, and the camera will do all the thinking for you—though you can still make some selections that will improve your pictures considerably. Using the joystick, you can select Portraits, Landscapes, Action, or Night Scenes-With-Flash, and the camera sets appropriate apertures and/or shutter speeds.

When you're ready to move up, Manual mode offers a wealth of choices: aperture

priority (f/2.9 to f/8), shutter priority (15 seconds to 1/1,000 second), separate control of aperture and shutter speeds, manual focusing, white balance, exposure bracketing (this takes three pictures, one of which should be perfectly exposed), burst mode, and more. You also have all the usual goodies, including four flash modes, a self-timer, macro mode (as close as 4 inches), video out (NTSC and PAL), in-camera picture resizing and silent-movie mode. The included infrared remote-control module that can trigger the shutter and advance pictures in playback from afar (great when the camera's connected to a TV).

The PDR-3300 has some quirks, though. The rubber flap covering the USB/TV and external power ports doesn't close properly. And battery power could stand some improvement; we only got 93 shots using four AA-NiMH rechargeables (not included) with the flash and LCD monitor on about half of the time. Finally, the included 8MB SD card holds only five high-quality JPEG pictures, a real bummer—we ended up using a SanDisk 32MB SD card (\$39.99, [www.sandisk.com](http://www.sandisk.com)) that stored 24 images.

Nevertheless, the picture quality was fine and digital artifacts stayed well within an acceptable range. Shot-to-shot time was a reasonable 3 seconds, playback time between shots only 1 second, and shutter lag (from the shutter press to the moment when the camera actually takes the shot) very short. Even when



**Aperture Priority gave us great near-to-far sharpness on this sculpture 6 inches in diameter, taken from less than a foot away.**

we trimmed away parts of the picture, enough pixels remained in the photos to produce creditable 8 by 10 prints—one of the advantages of high-resolution images.

The PDR-3300 is great value for the money, even if you have to spring for a higher-capacity memory card. You can start off by using it as a point-and-shoot, but all the advanced controls are there whenever you're ready for them. And that time will come sooner than you think.

—Arthur Bleich



**Though not particularly sexy, the PDR-3300 offers a very attractive combination of features and user friendliness at a frugal price.**



**This little stick makes navigating the 3300 a joy.**

**COMPANY:** Toshiba America  
**CONTACT:** 800-829-8318,  
[www.toshiba.com](http://www.toshiba.com)  
**PRICE:** \$349 (SRP)

**REQUIREMENTS:** Mac with USB,  
Mac OS 8.6–OS X

**GOOD NEWS:** Excellent advanced feature set. Fine image quality.  
Rapid menu navigation. Good manual.

**BAD NEWS:** Dinky 8MB SD memory card stores only five high-quality JPEG images. Battery life could be longer.

**MacAddict RATED**  
●●●●●  
**GREAT**





# Get Smart

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www.granitedigital.com

## The FireWire Drive with a technician built in.

Ever wondered what's really going on inside that box? With the new line of **SMART Drives** from Granite Digital, you will never have to wonder again. This FireWire IEEE1394 enclosure includes a Microprocessor and LCD display that will tell you everything you ever wanted to know about your drive's condition. It's like having your own technician built into every case. The case also monitors drive performance for speed-intensive operations like DV and AV and it helps keep your data safe and secure.

So, if you're looking for the safest place to store your data, and if you like the idea of knowing what's going on before you have a problem, then the **SMART Drive** from Granite is the drive for you.

Unlike other FireWire companies, Granite writes its own firmware and supports more drives than anyone else. Our easy to use upgrade and browser utilities keep us ahead of the competition while giving our customers the information that they need....spoil yourself and Get Smart.

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PHOTOGRAPHY BY MARK MADEO

The ScanMaker 6700 (left) and Perfection 2450 (right) produce nearly identical scans, but software sets them apart.

# ScanMaker vs. Perfection Photo

## SCANNERS

Based on specifications alone, the Epson Perfection 2450 Photo and Microtek ScanMaker 6700 might seem identical. Both of these flatbed scanners sell for \$400 and feature built-in transparency adapters, along with FireWire and USB ports. Both models can capture 8.5-by-11.7-inch originals in 48-bit color at a maximum optical resolution of 2,400 by 4,800 dpi. In practice, however, the functionality and usability of each scanner differed significantly.

### The biggest difference between the two scanners is their software.

Thanks to its clear documentation and simple installer, the Perfection was easier to set up than the ScanMaker, even though Microtek thoughtfully provided both FireWire and USB cables and Epson included only a USB cable. The ScanMaker is slightly larger and lighter than the Perfection, but the ScanMaker's lid seems flimsy while the Perfection's feels solid. Furthermore, the former doesn't indicate how to position your document, whereas the latter clearly identifies the correct corner.

Both scanners come with Adobe's Photoshop Elements for image editing, as well as TWAIN drivers for communicating with your Mac—in Mac OS 8.5 through 9.x, anyway. Neither has native Mac OS X drivers yet (both companies have uttered “fall 2002,” but not very convincingly), though both work in Classic mode and with Hamrick Software's all-purpose scanner driver, VueScan (\$40, [www.hamrick.com](http://www.hamrick.com); see *Reviews*, Jul/02, p55) in OS X.

When it comes to scanning performance and image quality, the Perfection and ScanMaker are virtually indistinguishable. Previewing a letter-size page takes approximately 10 seconds, as does scanning a 4-by-6-inch photo at 72 dpi. Scanning the same photo at 24-bit color depth and 1,200 dpi took roughly 3 minutes (oddly enough, FireWire was no faster than USB). In our tests, we found no discernible difference in image quality: Both scanners reproduced colors, contrast, and details with great accuracy.

The biggest difference between the two scanners is their software. Microtek's ScanWizard has a clumsy, nonstandard Basic mode and an Advanced Control mode that offers more scan-tuning options, but in a

similarly nonintuitive interface. ScanWizard also often had trouble finding the scanner and produced an unsettling number of incomprehensible errors. In contrast, Epson's driver interface shows most of the settings right up front, so you can adjust your settings quickly and easily.

The Perfection really shines when it comes to scanning transparencies. Its three sturdy plastic templates hold slides, filmstrips, and transparencies in precise, predefined positions so the software can crop individual images automatically and so you can apply different settings to each scan. The ScanMaker, on the other hand, has a single flimsy template that merely positions your transparency beneath the backlight. And while you can arrange up to four mounted slides in that template, you must use the same settings on each and then manually straighten and crop them.

The Perfection 2450 Photo isn't quite perfect, but if Epson included a FireWire cable, an OS X driver, and a working OCR, it would be pretty darn close. As for the ScanMaker 6700, Microtek needs to focus as much on fit and finish as it does on raw functionality.—Owen W. Linzmayer

### Perfection 2450 Photo

9

**COMPANY:** Epson  
**CONTACT:** 800-873-7766,  
[www.epson.com](http://www.epson.com)  
**PRICE:** \$399 (SRP)

**REQUIREMENTS:** Mac OS 8.5 or later (for USB) or Mac OS 8.6 or later (for FireWire), 64MB of RAM (128MB recommended), free USB or FireWire port

**GOOD NEWS:** Good documentation. Solidly built. Fast. Excellent scan quality. Sophisticated software. Handles transparencies with ease.

**BAD NEWS:** FireWire cable not included. No OS X driver.

MacAddict RATED  
●●●●●  
**GREAT**

### ScanMaker 6700

9

**COMPANY:** Microtek  
**CONTACT:** 310-687-5800,  
[www.microtekusa.com](http://www.microtekusa.com)  
**PRICE:** \$399.99 (SRP)

**REQUIREMENTS:** Mac OS 8.6 or later (for USB) or Mac OS 9.x or later (for FireWire), 64MB of RAM (128MB recommended), free FireWire or USB port

**GOOD NEWS:** Fast. Excellent scan quality.

**BAD NEWS:** Flimsy lid. No OS X driver. Unpolished software.

MacAddict RATED  
●●●●●  
**SO-SO**



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# Animation:Master 2002

3D ANIMATION

At just \$299, Hash's Animation:Master is the world's best deal in 3D character-animation software. This venerable program combines a unique spline-based modeler, top-notch animation tools, and a functional renderer. Version 2002 (also known as version 9.5) advances into areas where the only other Mac-compatible competitors—Alias|Wavefront's \$1,999 Maya Complete and Newtek's \$1,599 LightWave 7.5—command five or six times the price.

The program's interface is now cleaner, more modern, and better arranged than previous versions'. You can group Pose sliders (character controls) in folders, making it easier to organize work with characters that have many facial expressions, walk-run cycles, and so on. General performance has also improved, mainly through support of OpenGL hardware rendering. Screen redraws and game-quality renders happen much faster.

## Version 2002's nearest competitors command five or six times the price.

Animation:Master has some of the best animation tools available at any price. You can apply animation clips—called Actions—to a character in any order; you can also blend Actions and combine them using Boolean operators. The timeline, where you do most keyframe editing, now adds tools for animating in layers, a sophisticated nonlinear approach to animation analogous to building an image from layers in Photoshop. You can also quickly collapse the timeline to show only the channels you choose. New time offsets for constraints allow you to create automatic secondary motion for ear tips, fingertips, wing tips, and other flexible character elements that lag behind the primary motion of body or limbs.

Hash has added a powerful new character-rigging feature called Relationships, which provides a user-friendly way to link any definable parameter to any other such

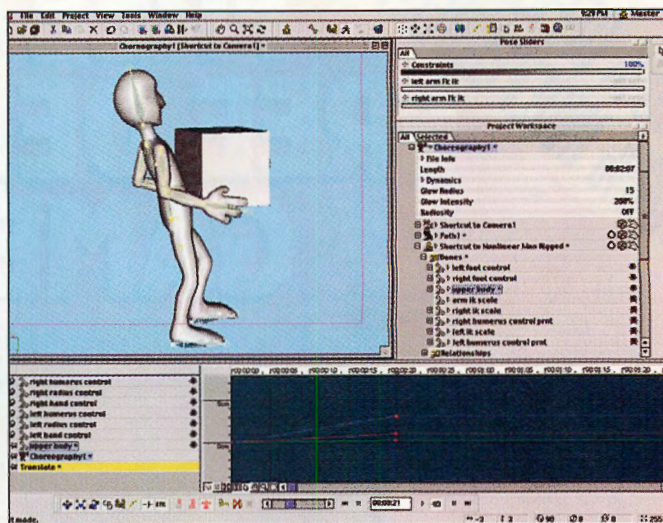
**Animation:Master 2002's revised interface is cleaner and more efficient, making it easier to get the most from this powerful 3D program.**

parameter. For example, you can set up a Relationship whereby a character's toes curl automatically when she lifts her feet.

Version 9.5 adds improved hair and fur textures that look better and render much faster than previous iterations. Animation:Master's particle generator now lets you use images as particles. And if you get lonely during those late-night renders, check in with the A:M Community, a built-in 24-7 chat for registered owners.

Hash takes an annual-subscription approach to upgrades. Buyers are assured of free updates throughout the year (the company posts online updates as often as every week) and can upgrade to the next major version for \$99. But when the program goes through a major evolutionary change, as it did with the switch from 2001 to 2002, it takes a while to stabilize. The version we tested was stable enough for production use but still lacked some promised features, such as export of BVH motion-capture files. The most glaring omission is that Hash has not yet officially announced Mac OS X support.

**This prize-winning image by Reed Kindt shows off A:M's figure-modeling and texturing abilities.**



A larger issue is the program's relative lack of industry support. Hash has gone its own solitary way for more than a decade, with the result that there are few third-party plug-ins to fill gaps in Animation:Master's own capabilities. Animation:Master users yearn for an advanced cloth simulator, a selection of plug-in renderers, and other add-ons. Hash's own rendering engine, while capable of producing high-quality results, hasn't gone through a serious overhaul since 2001.

Animation:Master 2002 doesn't work like other 3D programs, and it doesn't have the professional cachet of Maya, but you'd be hard-put to find another app in any field that delivers this kind of value.—Steve Anzovin and Raf Anzovin



ILLUSTRATION BY REED KINDT



**COMPANY:** Hash Enterprises  
**CONTACT:** 360-750-0042,  
www.hash.com  
**PRICE:** \$299 (standard),

\$699 (network), \$99 (upgrade)  
**REQUIREMENTS:** 200MHz Power Mac  
or faster, Mac OS 8.6–9.x., 64MB of RAM

**GOOD NEWS:** Top-notch character-animation tools. Revamped interface. Relationships feature. Better fur and hair. Superb value.  
**BAD NEWS:** Not Mac OS X native. Renderer needs overhaul.  
Few plug-ins.

**MacAddict RATED**  
GREAT



# 360 One VR

## ONE-SHOT PANORAMA LENS

The best way to experience an inaccessible place—say, the cockpit of a new BMW Z8 or poolside at the Beverly Hilton—without leaving home is with QuickTime Virtual Reality (QTVR) panoramic movies. QTVR offers a 360-degree look, and you can stay as long as you like, zooming in and out to examine points of interest in detail.

Making a good QTVR panorama generally requires taking upward of 18 photos (preferably high-resolution digital images) and using special software to stitch them together into one seamless scene. The 360

## The 360 One VR captures the whole 360-degree enchilada in a single shot.

One VR simplifies the process drastically. Mounted on a supported camera and perched on a monopod or tripod, the 360 One VR captures a panorama—the whole 360-degree enchilada—in a single shot. There are trade-offs for this ease of use, though. One is the device's steep price.

The 360 One VR optical assembly is the oddest-looking photo gadget ever. It stands about 7.5 inches tall and screws directly onto any camera with a 67mm thread mount—a short list in the consumer digital-camera market. Kaidan sells mounting kits (\$89.95 SRP) to fit the device on Nikon's CoolPix 995, 990, and 5000. Halfway up the device, supported by three stanchions, is a clear plate made of optical

glass. It has a post mounted in its center, with a highly polished, curved mirror atop.

Initial setup on a CoolPix is a short, eight-step process. The 360 One VR requires manual camera settings, center-weighted metering, and aperture-priority exposure, with image resolution set to high and the flash disabled. You then use the zoom-adjustment buttons to fill the LCD viewfinder with the circular image, and set the focus to 0.18 meters manually.

The only way to stay out of the picture (and avoid making your forehead look as expansive as Greenland) is to use a tripod and the camera's self-timer. A 10-second countdown provides time to duck out of the way. The vertical field of view is 50 degrees above and below the horizon. The camera records the distorted, circular image reflected in the mirror with one exposure. This truly is run-and-gun pano photography.

The included PhotoWarp software takes over when you transfer the images to your Mac. Turning a blob-like 360 One VR image into a tight QTVR movie is deceptively simple. Adjust the mask so it precisely covers the dark center and outlying black ring in the image. (The dark areas are the center post and mirror frame.) Choose the output format (QTVR, QTVR Cubic, Spherical, or Cylindrical Image) and the quality desired, then click the Unwarp button. Unwarping our raw images took just seconds on a 450MHz G4—definitely faster than laboriously stitching together a dozen or more individual frames.

**Believe it or not, this blob is one click away from becoming an interactive QTVR movie.**



PHOTOGRAPH BY MARK MADEO

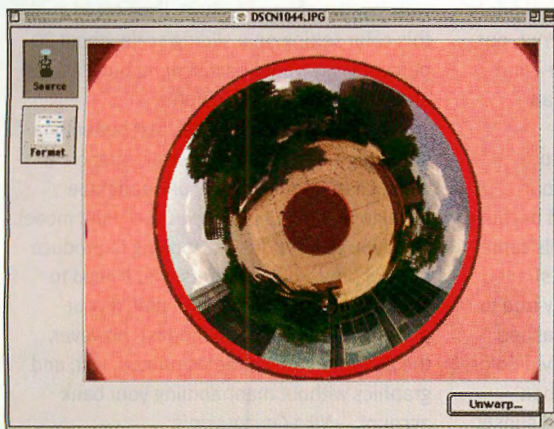
**It's a coffemaker...it's a headlamp...no, it's the 360 One VR—a one-shot panorama machine.**

So what's the downside? Besides the high price, you pay for one-shot convenience in output quality. The mirror simply can't resolve detail like a real optical lens. Quality is acceptable when you view the scene normally, but zoom in and the detail quickly diminishes.

This especially affects darker areas of a contrast-laden scene, such as shadows in an otherwise bright exterior shot. They look muddy compared to the results of conventionally made QTVR panoramas. QTVR photographers using multiple images often fine-tune the pictures in Photoshop before creating the finished product. You can't do that with the 360 One VR.

A photographer willing to invest more time in each project can save hundreds and gain superior results by purchasing a panoramic tripod head and a QTVR software package. If you need QTVR of the quick-and-dirty variety and you're either lazy or gadget-happy, this thing is for you.

—Tom Lassiter



**COMPANY:** EyeSee 360°, distributed by Kaidan  
**CONTACT:** 215-364-1778, [www.kaidan.com](http://www.kaidan.com)  
**PRICE:** \$995 (SRP)

**REQUIREMENTS:** Camera with standard 67mm thread mount (adapters for other cameras sold separately), Mac OS 9.0.4 or 10.1 or later for PhotoWarp software (included)

**GOOD NEWS:** Simple to use. Cool-looking device.  
**BAD NEWS:** Output quality is limited. Expensive.

**MacAddict RATED**  
 SO-SO





# Z65 Color Jetprinter

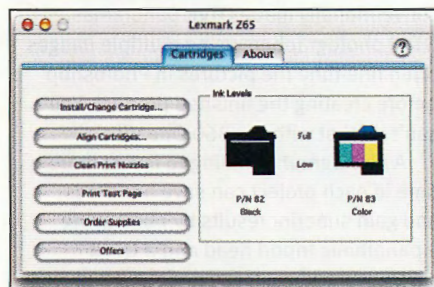
## PRINTER

Somehow, we've become conditioned to associating Lexmark printers with the term *bargain basement*. That's why the Z65 Color Jetprinter surprised us with its sturdy construction and smart drivers (especially the included OS X driver). The Z65 also prints reasonably fast, and its color-photo prints look better than we expected from a printer with only two ink cartridges (one for black and one for all the colors)—these days, high-end printers (such as Epson's 2200, reviewed on p42) use up to seven colors of ink, each color in its own independent ink tank.

Setting up the Z65 and installing the drivers is incredibly easy. Having only two ink cartridges instead of seven makes for quick and easy installation, and the driver installer is even more foolproof. In Mac OS X, Lexmark's driver installer app smartly installs the appropriate driver; and before quitting, it asks if you'd like to install drivers for Mac OS 8.6 through 9.x—a nice touch.

## Vivid Color mode dappled our serene Hawaiian sunset with swaths of neon fuchsia.

Not only are the drivers included in the box, but the Z65's OS X driver is the first we've seen that gives you access to key printer utilities (such as the display of remaining ink and cartridge alignment) from the driver interface. Granted, this integration is merely a button that launches Lexmark's Z65 Utility, but



**Finally: print utilities where we can use them—in the driver interface, instead of buried in the Applications folder.**



PHOTOGRAPH BY MARK MADEO

**Low budget doesn't have to mean low quality; the Z65 produces surprisingly good color prints in good time.**

clicking a button is far more convenient than digging into your Applications folder to find printer utilities, as you must do with other printers in Mac OS X. Unfortunately, Lexmark's Ink Levels display (see below, left) is as low-tech as the printer's two-tank ink system, but it does the job.

Using the Z65 is also pretty simple; the driver offers all the usual options for selecting paper type and print quality. However, the printer's onboard paper sensor handles the former, and of the four print-quality settings (Quick Print, Normal, Better, Best), three produced identical-quality prints. The difference in time was substantial, though: At the Best setting, our 8 by 10 color photos took 16 to 18 minutes to crawl out of the printer. Normal mode produced identical prints in 5 to 6 minutes. When set to Quick Print, our photos flew out in about half a minute—and looked like they'd been plucked from an extremely old and faded newspaper.

Though the print quality showed no variation—none—across three of the four different print settings, we didn't mind because that quality was pretty high. Fine details came out generally sharp (less so in heavily shaded and overbright areas), and color is very true to the original, though ever-so-slightly washed out. Switching from Natural Color to Vivid Color in the print settings solved that, and then some—it dappled our serene Hawaiian sunset

## Print Party

You might appreciate another high-end feature the Z65 has—well, almost has. Network printing is a simple upgrade away with Lexmark's N1 Ethernet Adapter (\$99.99, [www.lexmark.com/US/products/N1](http://www.lexmark.com/US/products/N1)), which is essentially a stand-alone print server that plugs into the printer's USB port and provides a 10/100 Base-T Ethernet port for interfacing with your home network. If networked printing is in your future, planning ahead can save you a cool \$70—the Z65n (\$229.99) is a Z65 with a built-in Ethernet port.

with swaths of neon fuchsia. If we could apply this color setting on a sliding scale, about 20 percent Vivid would be just right, but alas, it's an all-or-nothing proposition.

The Z65 actually handles text better than some high-end photo printers; it spat out a clear, crisp 30-page Treaty of Guadalupe Hidalgo in 3 minutes flat (in Quick Print mode).

If you're a serious pro looking to produce piles of photo-quality prints, you'll need to spend more for a higher-end unit. If your printing needs are more modest, however, the Z65 admirably handles photos, text, and graphics without manhandling your bank account.—*Niko Coucouvanis*

**COMPANY:** Lexmark  
**CONTACT:** 888-539-6275,  
[www.lexmark.com](http://www.lexmark.com)  
**PRICE:** \$199.99 (SRP)

**REQUIREMENTS:** 300MHz G3 or faster,  
Mac OS 8.6 or later, USB connection

**GOOD NEWS:** Decent-quality photo printing.  
First-rate text printing. Simple to set up and use.  
**BAD NEWS:** Quality settings only affect print time, not  
quality. Vivid Color mode is scary. USB cable not included.

**MacAddict RATED**  
●●●●●  
**SOLID**



# Sony MDR-NC11

## NOISE-CANCELLING EARBUDS

Many otherwise-happy iPod owners agree that its bundled earbuds are the device's weakest link. We agree. So when we first heard of Sony's uneconomically named MDR-NC11 Noise Canceling Fontopia Ear-Bud Headphones, we hoped that our search for earbuds worthy of the mighty iPod was over.

It was. Sony's great-sounding earbuds are the ultimate iPod accessory.

Each of the earbuds is equipped with a tiny microphone that samples your environment's ambient sound; it then pipes that information through noise-canceling circuitry in an

drivers in the earbuds, a good chunk of background sound is neutralized. Bottom line: Music sounds great.

Although the MDR-NC11 is capable of a healthy 10Hz-to-22KHz frequency response, its noise-canceling circuitry operates in the 50Hz-to-1,000Hz range, with a theoretical top noise reduction of 70 percent—about 10dB (decibels)—around 100Hz to 400Hz. Translated from audiophile geek speak, this means that while such annoyances as airline cabin noise are substantially reduced, you can still hear the flight attendant tell you that the flight you've just boarded is headed to Auckland, not Oakland.

The MDR-NC11 comes with three sizes of earbud sleeves; in our case, although the left earbud fit perfectly in our ear canal, the



**They're far from inexpensive, but if great sound is important to you, these in-the-ear earbuds are worth the investment.**

medium sleeve on the right earbud was too large and the small sleeve too small. The right earbud slipped slowly out of our ear every 20 minutes or so.

In addition to the extra earbud sleeves, the MDR-NC11 comes with an airline-audio adapter plug, a soft carrying case, and a doohickey designed to minimize cord tangle (it doesn't). An on-off switch toggles the noise-cancellation circuitry, and a volume wheel and LED "on" light add convenience.

—Rik Myslewski

## Sony's earbuds are the ultimate iPod accessory.

AAA-battery-powered connection box, which generates and then mixes an equal-but-opposite canceling signal with the audio signal coming from your player. When this combined signal gets to the powerful 9mm

**COMPANY:** Sony  
**CONTACT:** 877-865-7669,  
www.sonymstyle.com  
**PRICE:** \$149.99 (SRP)

**REQUIREMENTS:** Any audio device with a standard 1/8-inch (3.5mm) analog headphone miniplug

**GOOD NEWS:** Noise-cancellation circuitry diminishes ambient sounds. Excellent fidelity, bass response, and volume.  
**BAD NEWS:** Included earbud sleeves may not fit your ears perfectly. Expensive.

**MacAddict RATED**  
★★★★★  
**GREAT**

PHOTOGRAPHY BY MARK MADEO

# PowerKey Pro 650

## SMART POWER STRIP

What, you may ask, is a USB port doing on a power strip? Turning it into a *smart* power strip, that's what. Who needs a smart power strip? You do if you've got a Mac in a remote location—say, a mission-critical server—or if you're a control freak and want to keep tabs on your home Mac while you toil away at the office, editing product reviews or what-have-you.

On the outside, the PowerKey Pro is a deluxe power strip, sporting a 6-foot cord and six grounded, individually switched outlets. On the end near the unit's power cord, you'll find a USB port and two phone jacks, wherein lay the PowerKey's hidden talents.

Using the USB port (cord included) and the PowerKey software, you can program the outlets to do your bidding: restart, start up,

shut down, wake up, or put a connected Mac to sleep; toggle each outlet's power on or off at scheduled times, at startup or shutdown, or at the press of hot keys you define; or execute the same tasks according to touch-tone codes you enter over the telephone. The drawback here is that startup by phone doesn't work on Macs that don't support keyboard startup (mainly post-September 2000 iMacs).

If the above has you drooling, you'll probably want the PowerKey Pro Admin version (\$299 complete or \$100 software upgrade), which adds advanced scripting features and Sophisticated's Rebound technology to the mix. Rebound automatically restarts the



**This is no ordinary power strip—it's a smart power strip. A really smart one.**

connected Mac in the event of a crash.

If you just want a power strip, go to Radio Shack; if you want the next best thing to a trained monkey who stays by your Mac and can do your bidding over the telephone, get a PowerKey.—Niko Coucouvanis

**COMPANY:** Sophisticated Circuits  
**CONTACT:** 425-485-7979 or  
800-769-3773, www.sophisticated.com  
**PRICE:** \$199 (SRP)

**REQUIREMENTS:** Mac with USB port, Mac OS 8.6–9.x or 10.1 or later, analog telephone line for phone features, G3 or later for scheduled-startup features

**GOOD NEWS:** All the power strip you need.  
**BAD NEWS:** Probably more power strip than you need. No surge protection (does have a 15-amp circuit breaker).

**MacAddict RATED**  
★★★★★  
**GREAT**



# StudioMouse

## OPTICAL MOUSE



PHOTOGRAPHY BY MARK MADEO

The stylish Kensington StudioMouse makes our keyboard look a little homely.

The Kensington StudioMouse looks like the lovechild of an iPod and a pair of DKNY sneaker mules, and it works even better than it looks. Though you'll get a few more out-of-the box features in Mac OS 8.5 through Mac OS 9 than in Mac OS X, the device's beautiful design and bundled MouseWorks software made it our favorite optical mouse on both platforms.

This lightweight 4.5-inch-long mouse with 5-foot USB cord has rubber side grips that fit comfortably in your hand. Intended for designers, the StudioMouse has four button-click options (left, center, right, and combination left and right), already programmed to zoom and pan in design staples like Quark's QuarkXPress, Adobe Illustrator and Photoshop, and Macromedia FreeHand. At least, that's how it works in OS 9. In OS X, you have to program your button

commands yourself in Kensington's MouseWorks software—but that's OK, because the fabulous MouseWorks also lets you assign keyboard shortcuts to buttons in nearly all your applications. Again, MouseWorks currently has a few fewer features in Mac OS X, but only serious mouse geeks will notice.

We weren't wild about one unique feature of the StudioMouse: the Scroll Sensor. It serves the purpose of a scroll wheel, but it works like a laptop's touchpad. And just as we don't love laptop touchpads, we didn't love the Scroll Sensor. We had difficulty scrolling slowly through Web pages, since the sensor didn't always respond well to our finger movement. Simply touching the bottom

or the top of the little square sensor did work well for jumping to the beginning or end of the page. Though it is a cool technology, we prefer a scroll wheel for now.

Despite the imperfect scroll, the StudioMouse works great, looks great, and feels great to use. Unless you have severe ergonomic issues and need to avoid using a mouse, you'll want this one next to your keyboard.—Narasu Rebbapragada



**COMPANY:** Kensington  
**CONTACT:** 800-235-6708 or  
650-572-2700, [www.kensington.com](http://www.kensington.com)  
**PRICE:** \$59.99 (SRP)

**REQUIREMENTS:** Mac OS 8.5 or later,  
USB port

**GOOD NEWS:** Great programmable software.  
Great looking.  
**BAD NEWS:** Button controls are slightly limited in  
Mac OS X.

**MacAddict RATED**  
●●●●●  
**GREAT**

# Beachhead 2002

## ARCADE-STYLE GAME

Panning Beachhead 2002 is about as challenging and stimulating as shooting fish in a barrel (or actually playing the game), so we'll get the bad news out of the way first: Beachhead 2002 is every bit as boring, repetitive, and inane as its prequel, Beachhead 2000 (*Reviews*, Feb/01, p53).

**The game does adhere to the time-honored military tradition known as the snafu.**

In the spirit of the maxim "If you don't have something nice to say, don't say anything at all," we'll instead focus on some of the little enjoyments, the perverse thrills we wrung from this game.

The first is a no-brainer: Shoot an enemy personnel carrier before the troops debark,

and watch burning bodies fly through the air or run in mad circles around the beach. That's good for at least a few chuckles.

Banal as the game may be, it adheres to the time-honored military tradition known as the snafu (situation normal all "fouled" up). What could possibly go wrong when you're alone in a bunker with your trusty guns? Why, equipment failure, of course: Sometimes for no apparent reason, your gun (actually its swivel mount) acquires a mind of its own and spins uncontrollably in whatever direction you nudge the mouse, in what appears to be a snafu with the mouse-sensitivity setting, though adjusting it didn't prevent the gun from going loopy.

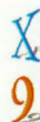
Yet more gratuitous realism comes in the



It's stop, drop, and roll, stupid—not burn, turn, and run.

new nighttime levels; good thing you've got an endless supply of flares, because that last target is mighty well hidden, and your standard-issue, night-vision goggles are about as useful as those X-ray specs you ordered from the back of an old *Archie* comic.

Point-and-shoot is great for a disposable camera, but even an arcade game needs at least a little more variety than that to hold our interest.—Niko Coucouvanis



**COMPANY:** MacSoft  
**CONTACT:** 800-229-2714 or 763-249-  
7600, [www.wizworks.com/macsoft](http://www.wizworks.com/macsoft)  
**PRICE:** \$19.95 (SRP)

**REQUIREMENTS:** 400MHz G3 or faster,  
Mac OS 8.6 or later, 128MB of RAM (192MB  
for OS X), 8MB VRAM with Rage 128 video  
card or better

**GOOD NEWS:** Smitten enemies do an amusing fire  
dance and/or scream like little girls.  
**BAD NEWS:** Stupid. Monotonous. Buggy controls.

**MacAddict RATED**  
●●●●●  
**LOUSY**



# DVD Studio Pro 1.5

DVD-MASTERING SOFTWARE

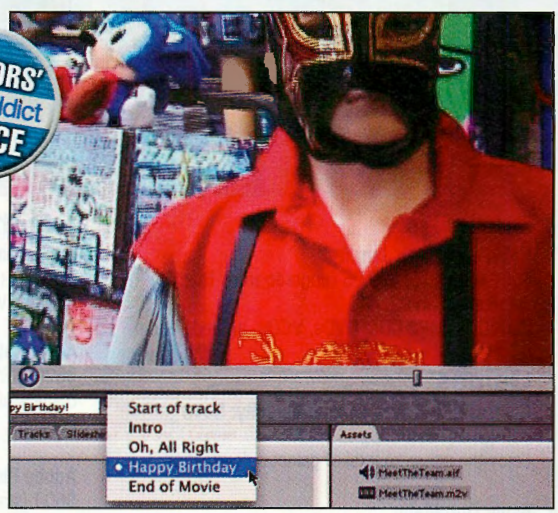
When Apple unleashed DVD Studio Pro and the mighty DVD-burning SuperDrive, the Macintosh prosumer crowd went wild. The initial release of Studio Pro was easy to use, and version 1.5 is even easier, thanks to its integration with Final Cut Pro.

Creating Chapter Markers (to designate Chapters, or scenes) is a regular part of DVD authoring, but in Studio Pro 1.0 this procedure had serious limitations: You could only create Chapter Markers at fixed intervals within a video track—tough cookies if you wanted to set them to your own specifications (say, at a scene change or at the end of a fade). In version 1.5, you can use Final Cut Pro to create Chapter Markers at will.

In addition to creating frame-accurate Chapter Markers, you can also create Compression Markers. When you compress a video into MPEG-2 (the standard codec for

DVD video), the codec may not catch certain scene changes, leaving you with compression artifacts. Without getting into the ugly details, Compression Markers tell DVD Studio Pro when compression should start, giving you better control over encoding quality.

If DVD Studio Pro has a weak spot, it's the manual. An important feature of DVD authoring is scripting. Without it, you might as well stick with iDVD, Apple's free DVD-authoring application. The manual lacks in-depth explanation of the different scripting commands, and it provides only cryptic definitions. For better education in this area, check out Recipe 4 DVD's DVD Companion series (\$99 each, [www.recipe4dvd.com](http://www.recipe4dvd.com)), a set of five programs providing a complete,



Behold! DVD Studio Pro now lets you set Chapter Markers wherever you want.

searchable reference (this installs in the Mac's onboard Help Viewer), as well as sample graphics and menus for various projects.

DVD Studio Pro has been a strong product since its release, and the new features only make it better; if you burn DVDs, you want this app. —Andrew Tokuda

**COMPANY:** Apple  
**CONTACT:** 800-795-1000  
or 408-996-1010, [www.apple.com](http://www.apple.com)  
**PRICE:** \$999 (SRP)

**REQUIREMENTS:** G4, Mac OS 9.2.2 or 10.1.3 or later, 256MB of RAM (512MB recommended), 12GB of hard disk space for project files (20GB for DVD-9 projects), Apple-supplied 4X AGP card and DVD drive (configuration must support Apple DVD Player 2.7 or later)

**GOOD NEWS:** Excellent integration with Final Cut Pro Markers. Mac OS X support.  
**BAD NEWS:** Manual still lacks detailed explanation of scripting commands.

**MacAddict RATED**  
●●●●●  
**GREAT**

## SyncMaster 765MB

17-INCH CRT MONITOR

Samsung's SyncMaster 765MB, a 17-inch CRT monitor, is an economical, high-quality display with useful on-display features.

Snap on the swivel-and-tilt base, plug in the enclosed VGA cable, and boot up. Samsung says the maximum resolution is 1,600 by 1,200 at a 68Hz refresh rate, and the optimal resolution is 1,280 by 1,024 at 75Hz—both displayed fine, but we still prefer viewing at 1,024 by 768 on a 17-inch screen. The SyncMaster 765MB has three brightness settings for reading text, surfing the Internet, and viewing TV, DVD, or gaming entertainment. You can manually adjust other advanced settings, and we liked the Highlight feature for brightening part or all of the screen. —Narasu Rebbapragada



The dependable, affordable Samsung SyncMaster 765MB is the Econoline of CRTs.

**COMPANY:** Samsung  
**CONTACT:** 800-726-7824,  
[www.samsungelectronics.com](http://www.samsungelectronics.com)  
**PRICE:** \$229 (SRP)

**REQUIREMENTS:** VGA port

**GOOD NEWS:** Affordable. Variable brightness settings work well.  
**BAD NEWS:** Steve says, "The CRT is dead."

**MacAddict RATED**  
●●●●●  
**SOLID**

## SportSuit Sleeve

IPOD CASE

Choosing a case for transporting and protecting your iPod is every bit as personal a decision as picking the 1,000 (or 4,000) songs you want in your pocket.

One very protective case comes from Marware. The SportSuit Sleeve cushions your iPod with neoprene on the outside, stiff plastic inserts, and a plush interior that prevents scratching. A rotating belt clip and earbud pocket grace the exterior's back and front, respectively.

The main drawback is that the SportSuit has exactly one access point, which accommodates the earbud cord (many other plug types won't fit). If you're the type who just turns on your iPod and listens without accessing the controls, the SportSuit Sleeve will suit you just fine. —Niko Coucouvanis



Despite its wet-suit looks, this SportSuit isn't for water sports.

**COMPANY:** Marware  
**CONTACT:** 954-927-6031,  
[www.marware.com](http://www.marware.com)  
**PRICE:** \$19.95 (SRP)

**REQUIREMENTS:** iPod or similarly shaped device you want to protect from the elements

**GOOD NEWS:** Well padded. Good construction.  
**BAD NEWS:** Case blocks access to controls.

**MacAddict RATED**  
●●●●●  
**SOLID**



# The Hot List

The best of the best from recent reviews. If the editors of *MacAddict* went shopping, this is what we'd buy.

## Software

### Audio

#### Roxio Toast with Jam 5

\$189.95 (SRP), \$99.95 (upgrade from Toast 5 Titanium), Sep/02, p49  
Burn CDs, MP3 CDs, DVDs, VCDs, and edit audio.

### Games

#### Ambrosia Software Escape Velocity: Nova

\$30 (SRP), Sep/02, p48  
Enjoy the perverse thrill of galactic domination.

#### Aspyr Otto Matic

\$34.95 (SRP), May/02, p63  
He's cute. He's fun. He's here to save the world.

#### Aspyr Return to Castle Wolfenstein

\$49.95 (SRP), Aug/02, p42  
What's more satisfying than killing zombie Nazis?



◀ **Aspyr The Sims Hot Date**  
\$29.95 (SRP), Sep/02, p46  
The Sims obey Petula Clark and go downtown.

#### Graphic Simulations Black and White

\$50 (SRP), Jun/02, p54  
The battle between good and evil can really be a blast.

#### MacPlay Icewind Dale

\$49.99 (SRP), Aug/02, p51  
Beautifully rendered RPG offers deep gameplay.

### Graphics & Layout

#### Adobe GoLive 6.0

\$399 (SRP), \$99 (upgrade), Aug/02, p39  
Adobe's Web-site builder picks up new features.

#### Adobe InDesign 2.0

\$699 (SRP), \$149 (upgrade), \$300 rebate for owners of QuarkXPress 3.0 and later, May/02, p50  
Look out, Quark—Adobe's rival layout tool kicks ass.

#### Adobe Photoshop 7

\$600 (street), \$149 (upgrade), Jul/02, p46  
Picture-perfect pixel pusher moves to OS X.

#### Hamrick Software VueScan 7.5.20

\$40 (SRP), Jul/02, p55  
Get more out of your scanner with this driver.

#### Macromedia Dreamweaver MX

\$399 (SRP), \$199 (upgrade), Sep/02, p44  
The best Web-site creator gets even better.

#### Macromedia Flash MX

\$499 (SRP), \$199 (upgrade), Jul/02, p51  
It started in animation; now it can do anything.

### Productivity & Utilities

#### Casady & Greene Conflict Catcher 9

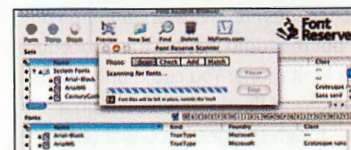
\$79.95 (SRP), \$29.95 (upgrade), Jun/02, p52  
Gain control of everything in OS 9's System folder.

#### Dantz Retrospect 5.0

\$79 to \$499 (SRP), Aug/02, p50  
Indispensable backup software goes Mac OS X.

#### Diamondsoft Font Reserve 3.0 ▼

\$89.95 (download), \$99.95 (boxed), \$49.95 (upgrade), Sep/02, p55  
Pure organizational bliss for the true font fiend.



### Video & Animation

#### Adobe After Effects 5.5

\$649 (SRP), \$99 (upgrade from 5.0), \$199 (upgrade from 3.x and 4.x), May/02, p49  
This motion-graphics stud improves its 3D powers.

#### Discreet Combustion 2

\$4,999 (SRP), Jun/02, p46  
In love with digital video? Go pro with this killer app.

#### Electric Image Universe 4.0

\$995 (SRP), \$695 (for owners of Softimage, Maya, Lightwave, Cinema 4D, or 3D Studio Max), \$349 (upgrade from 3.x), \$449 (upgrade from 1.x and 2.x), Jun/02, p58  
There's a reason why this is *the* 3D app: It's great.

## Hardware

### Audio

#### Altec Lansing XA 3021

\$99.95 (SRP), Sep/02, p56  
The look is way-cool retro; the sound is up-to-date.

#### Digidesign Mbox

\$495 (SRP), May/02, p59  
Take your recording studio with you on the road.

#### Griffin Technology PowerMate

\$45 (SRP), Sep/02, p55  
Like Exec Editor Cathy Lu: beautiful and talented.

### Digital Cameras

#### Olympus D-520 Zoom

\$299 (SRP), Sep/02, p45  
Want an entry-level digicam? Look no further.

#### Olympus E-20N

\$1,999 (SRP), Aug/02, p43  
If you know what you're doing, this one can do it.

### Displays

#### Apple Cinema HD Display

\$3,499 (SRP), Aug/02, p40  
This 23-inch, flat-panel beauty inspires lust.

#### Sharp LL-T1820 LCD

\$1,199 (SRP), Sep/02, p56  
Slim and stylish, this 18-incher displays a billion colors.

### Printers

#### Brother 1870N

\$699 (SRP), Aug/02, p45  
This 19-ppm networkable laser printer works great.

#### Epson Stylus Color C60

\$99 (SRP), Jun/02, p48  
Color, convenience, class—this inkjet's got it all.

#### Samsung ML-1210

\$199 (SRP), Jun/02, p53  
At this low price, anyone can afford a laser printer.

### Storage

#### CMS Peripherals ABS Plus

\$237 to \$699 (SRP), May/02, p59  
Hate to back up? With this baby, it's almost fun.

#### EZQuest Cobra Slim 60GB

\$629 (SRP), Jul/02, p56  
This gorgeous FireWire hard drive proves even storage can be sexy.

#### MCE Technologies Lucid

\$299 (SRP), May/02, p60  
This portable CD-RW has FireWire, looks great.

#### Other World Computing Mercury Elite 160GB ▼

\$349.95 (SRP), Sep/02, p53  
Handsome, sturdy drive is whisper quiet.



#### TDK veloCD

\$315.99 (SRP), \$275 (street), Jul/02, p54  
FireWire-equipped CD-RW drive is freaky fast.

#### WiebeTech MicroGB 40GB

\$399.95, bare case \$159.95 (SRP), Jul/02, p56  
A cool anodized-aluminum FireWire hard drive holds speedy innards.

### Systems

#### Apple PowerBook G4 800MHz

\$3,199 (SRP), Aug/02, p38  
The world's best laptop just got even better.

#### Handspring Treo 180

\$599 (SRP), \$399 with service, Aug/02, p44  
It's a cell phone, it's a PDA, and it's undeniably cool.



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## TERMINAL APPLTALK

Is there a Terminal command in Mac OS X that lets you browse an AppleTalk network?

Browsing an AppleTalk network in Mac OS 9 to connect to and troubleshoot AppleTalk servers requires extensive use of the Chooser to see zones, servers, and network printers. In Mac OS X, the Chooser is gone, but you can still browse an AppleTalk network. In the Finder, select Connect To Server from the Go menu to browse the zones and servers available on your AppleTalk network. And for those Terminal junkies, the `atlookup` command scans your AppleTalk network for available devices. For more information on `atlookup`, type `man atlookup` to read the manual pages about this very handy utility.

```


$ /usr/bin/login (tty1)
Welcome to Darwin!
[localhost:~] zoller% atlookup
Found 2 entries in zone *
0001.56.00 LAZER:LaserWriter
ff50.ba.00 Zoller T1Book:Darwin
[localhost:~] zoller%
    
```

Using `atlookup`, you can see that Buz's network contains a laser printer and a PowerBook running Mac OS X.

## MY HARDWARE'S BROKEN

How can I tell for sure if I have a hardware problem with my computer?

Most of the time, what seems to be a problem with your computer's hardware is actually a



**ON THE DISC**

FruitMenu (OS X) 2.0,  
Classic Menu 2.5.3, and  
Diablotin 1.2.2

software problem that you can fix with perseverance and good software-troubleshooting skills. If you are convinced you have a

hardware problem, though, start by removing any hardware you've added to your computer. Taking out extra RAM, PCI cards, or any other extra hardware can simplify the process of determining what may be broken.

A handy CD called Apple Hardware Test comes with all recently released Macs. Booting off this CD (hold down the C key with the CD in the drive) and running the test will show whether any of your computer's internal components need servicing. Apple Hardware Test has a secret loop function, which can run the test overnight to find any problems a single pass might miss. Press Command-right arrow to access the loop function.

## WHO AM I?

Is there a Terminal command that can give me information about my computer?

The easiest way to get all the dirt on your computer is to use the Apple System Profiler application, available in Mac OS 9 and OS X. If you want to learn about your computer in Terminal, use the `hostinfo` command. Typing `—hostinfo—` into Terminal will tell you your processor version, what version of the kernel your Mac is running, and how much memory is installed.

## DOCK SLOW-MO

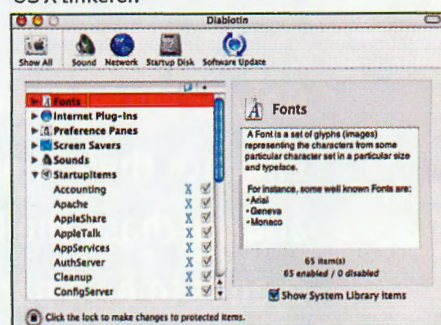
How do you access the slow-motion Genie effect in Mac OS X?

The Genie effect minimizes and maximizes windows in and out of the Mac OS X Dock. To slow down this effect, hold down the Shift key when double-clicking a window's title bar. This trick works in reverse, too.

## XTENDING EXTENSIONS

Does Mac OS X have an equivalent of the Extensions Manager?

In pre-OS X days, the Extensions Manager control panel was an easy way to disable and enable system extensions to troubleshoot conflicts among them. Mac OS X eliminated extensions, and its stable Unix software base has greatly diminished the need for tracking down software conflicts anyway. However, there is a software tool that works like the Extensions Manager to troubleshoot software problems. Diablotin (White Box Software, <http://s.sudre.free.fr>, free) is a handy preference pane that lets you disable startup processes, unused fonts, sounds, or screen savers. It is a must-have for the Mac OS X tinkerer.

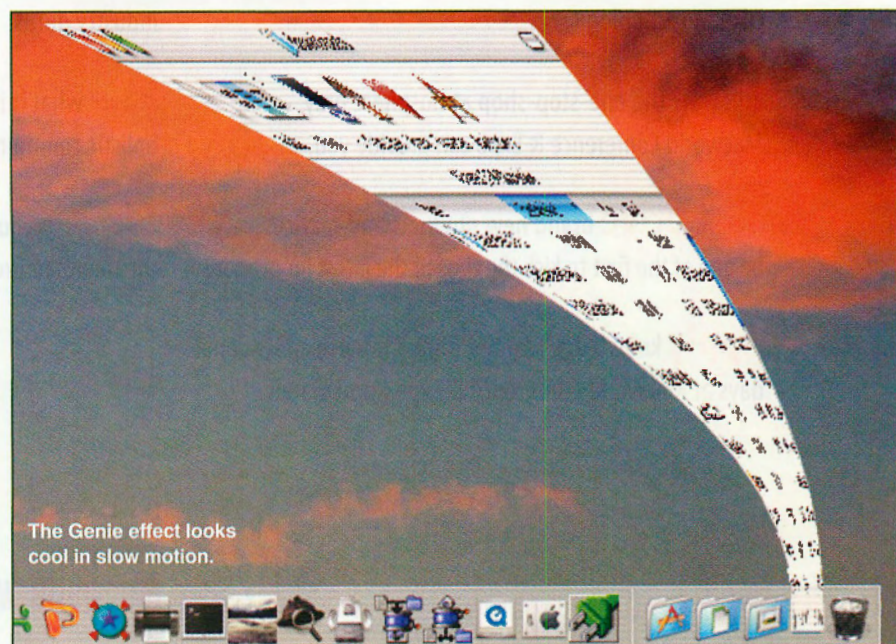


However oddly named, Diablotin is a nifty utility.

## SMOOTH OPERATOR

Can you turn off the font smoothing in Internet Explorer 5.2?

Internet Explorer 5.2 for Mac OS X has enabled font smoothing so that all the text on Web pages is smooth and antialiased. The





...roduct, shake, shipped with  
 time is nigh--right around the  
 will include a powerful incentive  
 the OS X version will be \$4,950  
 price for the Linux, IRIX, and  
 ...for...of \$1,105)

**Turning off the font-smoothing feature makes small text more readable but jaggy.**

downside is that some really small fonts on pages may be harder to read, since smoothing does make text a bit blurry. You can turn off font smoothing in the Interface Extras preference in Internet Explorer. Simply uncheck the Enable Quartz Text Smoothing check box, and your text will return to its former rugged (but readable) state.

## DSL DEFINED

**What is the difference between xDSL, ADSL, and SDSL?**

DSL (digital subscriber line) gives users incredible bandwidth over existing telephone lines. For areas that don't have Internet access available via cable television lines, DSL is a godsend. The term xDSL refers to any form of DSL—for example, ADSL (asymmetric digital subscriber line). Asymmetric simply means the upload and download speeds are not the same. When you're browsing the Web or streaming music, you're downloading data 99 percent of the time. Since there is in general very little upload traffic, ADSL providers limit the upload bandwidth and concentrate their bandwidth on user downloads. This makes ADSL the least expensive DSL service, and most users don't even realize there's a difference between upload and download speeds.

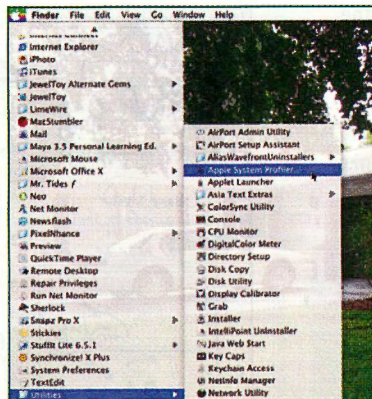
If you notice the difference, then you probably want SDSL (symmetric digital subscriber line), which provides full bandwidth during both uploads and downloads. This is important if you are running a Web server or uploading lots of files to an FTP site. SDSL is usually quite a bit more expensive than ADSL, but worth the cost if uploading is as important to you as downloading. Also, HDSL (high bit rate DSL) offers T1-like connections over existing copper lines, and VDSL (very high bit rate DSL)

provides connection speeds of 50 or more Mbps, which is indeed very fast.

## APPLE MENU REDUX

**How can I bring back the old Apple Menu in Mac OS X?**

The Mac OS X Apple Menu is but a pale shadow of its former self. While the Dock has adopted many of the old Apple Menu's functions, a lot of Mac users feel this just isn't the same. Two pieces of shareware add the old Apple Menu to Mac OS X. Classic Menu (Sig Software, [www.sigsoftware.com](http://www.sigsoftware.com), \$10) lets you access folders and files through the Apple Menu, and FruitMenu (Unsanity, [www.unsanity.com](http://www.unsanity.com), \$7) keeps the existing blue Apple Menu's core functions while allowing you to add your own items.



**Classic Menu lets you decide what your Apple Menu holds.**

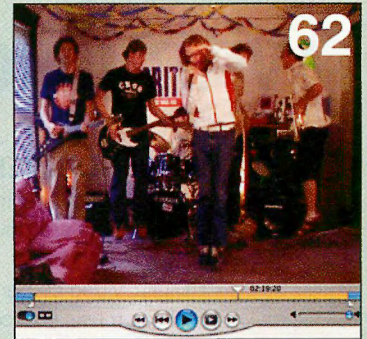
**Submit** technical questions or helpful tips directly via email ([askus@macaddict.com](mailto:askus@macaddict.com)) or c/o MacAddict, 150 North Hill Dr., Brisbane, CA 94005.

Six years of tech support for Apple, Power Computing, and a Texas school district has given Buz Zoller Mac superpowers.

# This Month

## 62 Create a Music Video with iMovie

Ever notice how your friends slowly back away whenever you invite them to watch your (yawn) new home movie? Boost your iMovie cool quotient by creating a music video that's sure to draw crowds.



## 66 Find What You Need on the Web

We plugged the name Max (our newly titled Eponymeditor) into Google to see what dirt we could dig up on the guy, only to be pummeled by 21.7 million hits of hay with no needling Max in sight. That was before we became Agatha Christies of the Internet. Find out our secrets for getting what you really want from the Web.



## 69 Burn a Multisession CD for Your PC Pals

The phrase "The glass is half empty" will apply to any session-burned CD you give your Windows-wielding friends or potential employers if you don't burn the disc properly. Get those glasses overflowing—and give your buddies access to your CD's full contents.



## Difficulty Ratings



No whining—  
anyone  
can do this!



It'll take some  
effort, but you  
can do it.



This stuff's  
for the pros.



# Create a Music Video with iMovie

by Jason Whong

## TRICKY

### WHAT YOU NEED

- Mac with built-in FireWire and an ungodly amount of hard-drive space (20GB or more)
- iMovie 2
- Digital-video camera
- Digital music source (CD, MP3, and so on)
- Portable CD player or laptop (for lip syncing)
- A band (or actors to impersonate them)



iMovie isn't just for simple home-movie fun; with a little know-how, you can create awesome music videos fit for MTV.

The two Stevens—Spielberg and Soderbergh—may be high-ranking icons representing your aspirations if movie directing is your ambition, but if you don't have time to spare and you only have iMovie to boot, a 90-minute cinematic spectacle is probably not in your near future. But if you're looking to finesse your DV-cam technique, you love music, and you're willing to push your iMovie skills to the next level, you can create a slick music video over the course of a weekend and transform yourself into a video-making visionary.

We take you through the entire process of creating a music video—from plotting the story line and shooting the sequences to editing the video in iMovie and exporting the final product. For those who think iMovie is too limiting in its capabilities, think again; check out the iMovie-created music video we shot for Donkey Punch, a band based in Ann Arbor, Michigan, to see how far we could push the app (see "Donkey Punch-Na Na Na.mov" on the Disc). Inspired? Good. So whadd'ya waiting for?



## Prime Time

Before you edit anything in iMovie—whether it's your first music video or your hundredth home movie—prime your Mac first.

**NO SLEEPING** iMovie won't work with Sleep mode engaged. Set your Mac to Never Sleep using the Energy Saver control panel in Mac OS 9 or the Energy Saver system preference in Mac OS X.

**GAIN MEMORY** If you're using OS 9 and have less than 128MB of RAM, turn on virtual memory, turn off any screen-saver app, and quit all other programs. Or better yet, buy more RAM.

**DEFRAG DE DISK** If you have a dedicated hard drive for video editing, initialize it (if it's empty) or defragment it (if it's not) for the best performance. If using an internal drive, defrag it to gain access to the biggest block possible of uninterrupted free space.

**1 Storyboard Your Ideas** Before you pick up your camera, get an idea of how you want the video to look. Listen to the song repeatedly, paying attention to the lyrics, the pacing, and the tone, until your mind conjures up visuals: maybe a straight live-performance piece, a story-rich drama, a combination of both, or the like. If you're shooting a real band, ask for their input and bounce ideas off each other. Consider everything you want the video to contain, including actors, locations, and props, and then draw a *storyboard*—a visual sequence containing

lyric or dialog lines, accompanied by illustrations of what the video will show at those points—for the entire song.



Creating a storyboard, complete with lyric lines and sketches, will help you organize and shoot scenes more efficiently.



## 2 Camera, and Action!

We can't tell you specifically how to shoot your video, but keep it efficient by grouping scenes based on the availability of actors, locations, and sunlight (use your storyboard as a guide).

Shoot one uninterrupted performance of the band or actors lip-syncing their song. For other shots, cue up and play the relevant song segment so the band members or actors get a feel for how quickly or slowly they should be moving, and so they get the lip sync right. Shoot scenes—whether it's a band performance or story sequence—from different angles for added interest (see “Vector Director,” below).

**Rather than resort to straight-on, mundane camera shots, experiment with different angles for added interest.**



## 3 Prep iMovie

Launch iMovie. From the File menu, select New Project. In the dialog that appears, give the project a name and then save it. In iMovie's Preferences dialog (in OS X, choose Select Preferences from the iMovie menu; in OS 9, Select Preferences from the Edit menu), click the Import tab and check the Automatically Start New Clip At Scene Break box so that each take gets imported as a separate clip. In the Imported Clips Go To pane, select Shelf. Then click the Advanced tab, uncheck the Extract Audio In Paste Over box, and click OK.

Here, iMovie is set up to import footage to the shelf as separate clips for each video take.



## 4 Import the Video

Connect your DV camera to your Mac's FireWire port and turn on the camera in VCR mode; iMovie should sense the connection and automatically switch the iMovie monitor to Camera Mode. Rewind the DV tape (if necessary) using the iMovie's onscreen controls or your camera's, and then click Import. iMovie sucks in all the video from the tape, storing each take as a separate clip in iMovie's shelf. Depending on the amount of footage you shot, this can take some time (and a glut of disk space).

Once you click Import, iMovie begins the arduous task of storing video to your hard drive and displaying clips in the shelf.

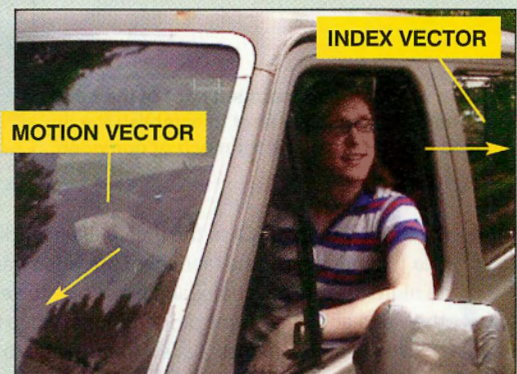


## Vector Director

Don't wince—we're not talking math. We're talking about using vectors to drive your video. A vector, in video-speak, is a directional indicator conveyed by motion (a speeding car, a person walking, that annoying Dell dude falling from a tenth-floor window) or by subtle cues (someone staring at the sky, Max laughing at the off-camera Dell dude). It's presented in a video frame—either tangible or implied—that leads the eye in a certain direction. Using vectors properly can help structure space and convey your story better to the viewer. Abusing them can leave your viewers scratching their heads.

Anytime a subject in your shot moves, that creates a motion vector going in the direction of the movement. When capturing a scene with motion vectors, position the camera to keep these vectors consistent. Don't start shooting a car from one side of the street and then finish up the sequence from the other side. This makes your shot disjointed; the car will appear to have switched directions even though it didn't really.

An index vector is more subtle, and indicates reference to something offscreen. If you videotape your singer looking to his left while singing to an offscreen actor, you'd better make sure she looks to her right in her close-ups; otherwise both subjects will appear to interact with an offscreen *something-or-other* that your viewer never sees.

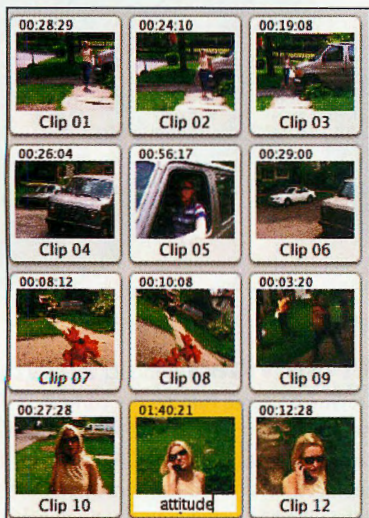


**Motion in a music video isn't just about booty shakin'—use motion vectors to lead your audience through your story.**



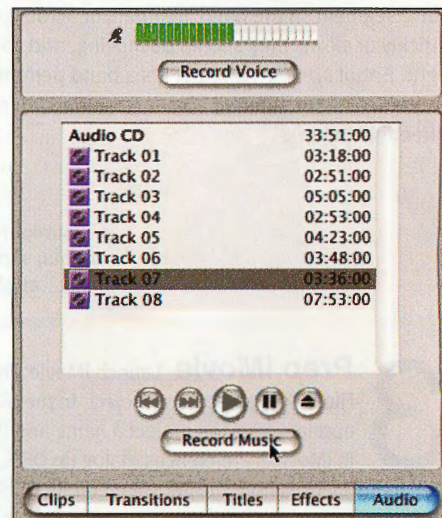
**5 Organize the Raw Clips** Click each clip in the shelf and press play to get an idea of which ones are good and which ones are garbage. Then, using your storyboard as a guide, drag and drop the clips so that the best takes are sequenced in the order your storyboard dictates and the unused clips follow the final shot. You may also want to rename each clip to distinguish between similar-looking clips.

To help you discern between several look-alike clips, rename them by selecting each one's title and typing a new one.



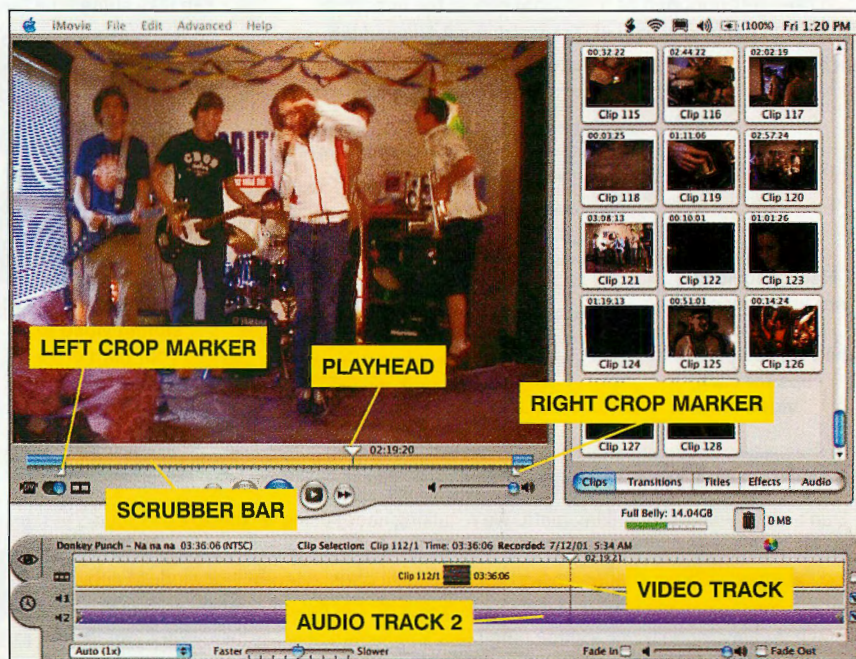
**6 Lay Down the Tune** The most important part of a music video is of course the music, so you import the song first to build the foundation for the visuals. Click the Audio button to open the Audio pane. If your song is on a CD, insert the CD into your drive, locate the correct track from the list in the Audio pane, and click Record Music; the track will play as it imports and then appear in audio track 2 in the timeline (click the clock tab in the timeline to view the tracks). If you're using an MP3, from the File menu, select Import File, navigate to and select the MP3, and click Import; the file appears in audio track 2. Then save your project.

To bring Donkey Punch's music into our video project, we used iMovie to record and import the song from the group's CD.

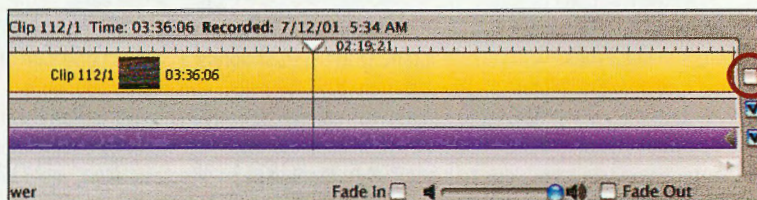


**7 Establish a Safety Shot** To establish an audio and video sync, use the full, uninterrupted performance clip we told you to shoot in step 2 as a *safety shot*, a continuous clip for syncing video to music that you can paste over to build a video. Click this clip in the shelf to open it in the monitor screen, then press play. Click and drag just under the scrubber bar to call up the crop markers, and drag the left crop marker to where the music begins or just before (use the arrow keys for fine-tuning). Then drag the right crop marker to where the music ends or just afterward. From the Edit menu, select Crop, and then drag the clip from the shelf onto the timeline.

We used a tripod-mounted shot of the band performing as our safety shot to establish the lip sync, and ended up using it for much of our video.



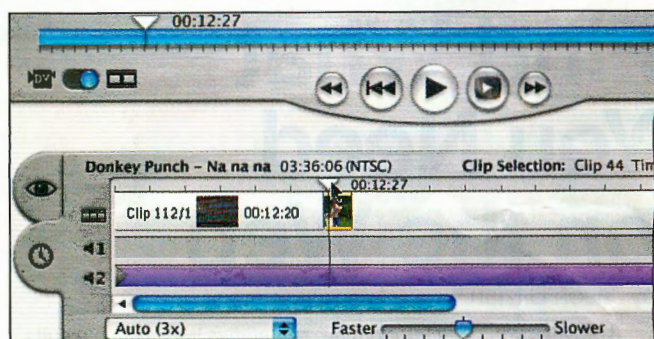
**8 Get It In Sync** In the timeline, uncheck the box that appears to the far right of the video track to mute the original audio, and press play to see if the video and music sync properly. If the video trails the audio, move the audio in track 2 a few frames later to compensate—click the audio clip, hold down the Command key, press the right-arrow key to nudge the audio track, and recheck your work. If the video comes in early, you cropped too much; quit iMovie without saving and repeat steps 7 and 8 until the tracks line up properly.



To turn off the original DV sound, uncheck the box to the right of the video track in the timeline.

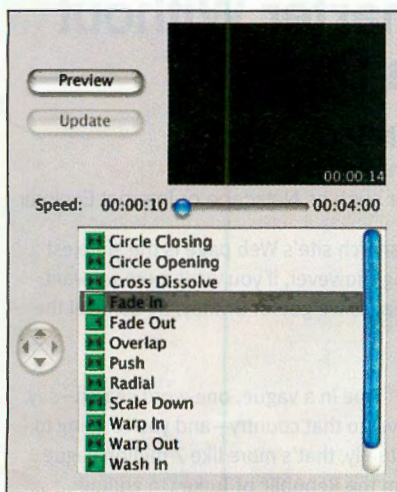


**9 Add the Rest of the Story** Time to add the real footage over your safety shot. In the shelf, click the clip that starts your video, crop the clip so that only the pertinent part remains, and then copy it (Command-C). In the timeline, move the playhead to where the video should begin. From the Advanced menu, select Paste Over At Playhead. Press play to check the sync. If it's off the beat, undo the paste (Command-Z), use the arrow keys to move the playhead a few frames earlier or later, and try again. Repeat this step for your remaining clips (see "We Got the Beat," below, for editing tips). To make a clip play in slow motion, click it in the timeline and move the speed slider toward Slower; to speed up a clip, move the slider toward Faster. If you shot some video that's kind of lame, give the safety shot some screen time instead of pasting the weak video over it.



**Paste the video clips precisely over your safety shot by moving the playhead to the exact point where you want each clip to start.**

**10 Add Basic Transitions** To smooth cut-and-paste edits, employ transitions. Use whatever you like, but use them sparingly. To make your video fade in from black at its start, click Transitions to open the panel, drag the Speed slider to 0:14 frames (about half a second—30 frames is 1 second), and drag the Fade In transition icon to the point just before your first clip in the timeline. To fade out to black at the end, drag the Fade Out transition to the end of your last clip. Use Cross Dissolve to soften any jarring edits between clips. You can also add text using the Titles pane, but stay away from the Music Video Text tool if you plan to release your video on the Web (compression makes this text unreadable).



**To begin a video with a fade in from black, drag the Fade In icon (the green box with the right-facing arrow) to the front of your first timeline clip.**

**11 Special Delivery** Once you're completely satisfied, you can export your music video to the Web (low resolution) or DV Tape (high quality). Though we recommend doing both, at the very least you should export a DV-quality version for your archives. Load your DV camera with a fresh tape (or cue up an older one), and connect the camera to your Mac. From iMovie's File menu, select Export Movie, select To Camera from the Export drop-down menu, and click Export. To save a Web-friendly version, select To QuickTime from the Export drop-down menu and set the compression settings to match your bandwidth capabilities. Now go out and promote like hell.



**For archival purposes, export your finished video back to your DV camera.**

DV enthusiast Jason Whong's dream is to have someone at Apple send him a copy of Final Cut Pro.

## We Got the Beat

If you decide to draft a complex storyboard, your iMovie music video experience may become a trial-and-error nightmare. Here are a few tips to keep you sane.

- **Match the beginning of a video clip with the song's beat, but don't worry about its ending.** You can paste over the end of one shot with the beginning of another clip instead of spending time trying to crop a clip so it ends exactly on a beat.
- **If some parts of your video appear dull, accent it with short video snippets.** Go through your unused footage and strategically paste in

2-second bits to highlight the story or band (band-member close-ups, actor reactions, or even outtakes). Lots of quick edits give your video more of an MTV flavor.

- **For more-precise editing, crop clips to the millisecond.** Open iMovie's Preferences, click the Views tab, uncheck the Use Short Time Codes box, and click OK. In the timeline, find a section of music to which you want to add video, note its exact duration (to the millisecond), select the relevant video clip in the shelf, and move the crop markers to span exactly that amount. Then crop, copy, and paste the clip over the safety shot.



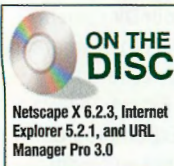
# Find What You Need on the Web

by Jason Ditzian

When you need information, sometimes Web search results seem to be culled from a mob of village idiots. Take one of today's most popular searches: Entering *Britney Spears* into search-engine giant Google yields about 1.2 million results. Britney's official Web site is among the top five, but below it, oddly enough, is a site about "semiconductor physics with a bias towards semiconductor lasers." Granted, the name Britney Spears does appear in the Web page, but Google doesn't take context into account.

A search on Yahoo for Britney Spears yields only about 90 results.

A query for just *Britney* returns about 100 hits. And yet (here's where it gets really fishy), Google powers Yahoo's searches. When you get down to it, unlike Britney and the music business, Web searching is not all about the number of hits—it's about the quality of the results.



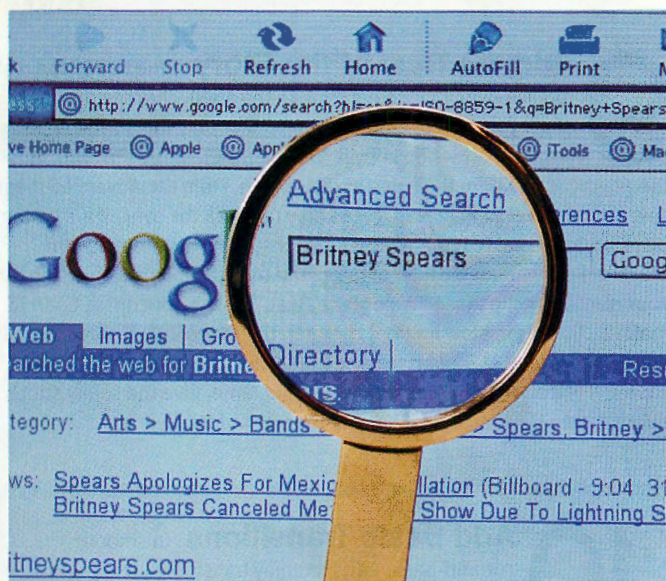
## Underneath the Internet Hood

You've heard of search engines, but what are they really? Because an Internet table of contents would be virtually impossible to compile and maintain, Web-savvy companies developed search engines to help users find information on the Web. These search engines fall into two general categories: crawler-based engines and human-powered directories.

A crawler-based engine pulls results from an archive that stores every word of every Web page on the entire Internet in a fast, searchable index. Google, Alta Vista, and Lycos all use this technology, sending out armies of virtual robots that jump from Web page to Web page, follow links, find new sites, and index all the content they encounter. Google goes a step further by ranking page results to distinguish the most relevant sites, giving preferential treatment to "popular" sites (those to which many other Web sites link).

Searches on human-powered directories usually return a smaller number of results, which explains why we got a measly 90 some-odd hits on Yahoo for our Britney Spears query. Instead of searching the entire World Wide Web, engines like Yahoo and Excite (at least as of press time—the latter company recently changed ownership) search sites that human editors compile by hand. Many sites pay to be listed, with extra cash earning companies top billing.

Since Yahoo can't cover every subject using this method, Google handles those queries it doesn't yet cover. This can lead to some idiotic results. For example, our Yahoo search for *Engelbert Humperdinck* netted 1,940 page results. However, when we spelled his name correctly—*Engelbert Humperdinck*—Yahoo returned only three sites. Why? Yahoo doesn't have the misspelling in its database, so the search gets deferred to Google, which searches the entire Web. Since Yahoo handles sites that paid for inclusion in the directory with the correct spelling, that's all you get when you search Yahoo.



Searching for Britney on the Web? Google yields more hits than the girl is worth.

If your Web searches leave you spinning in a vicious circle, lost in a sea of useless information, we can tell you how to retrieve the information you really want. And once you've found everything you're looking for, we'll show you a way to organize your links that won't leave you second-guessing your options.

## Search Smarter Without Breaking a Sweat



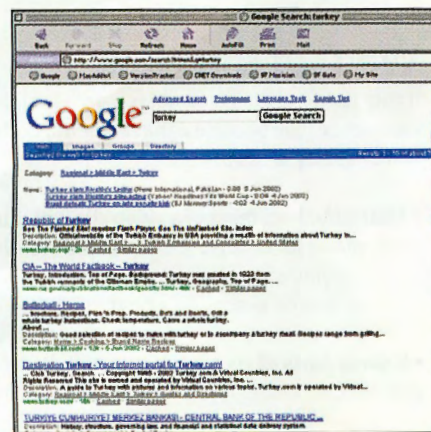
### WHAT YOU NEED

- An Internet connection
- A Web browser such as Netscape or Internet Explorer

Entering a key word on a search site's Web page is the simplest form of Internet searching. However, if you want more-relevant results than the 1.2 million pages we got for Britney, try some of the following methods.

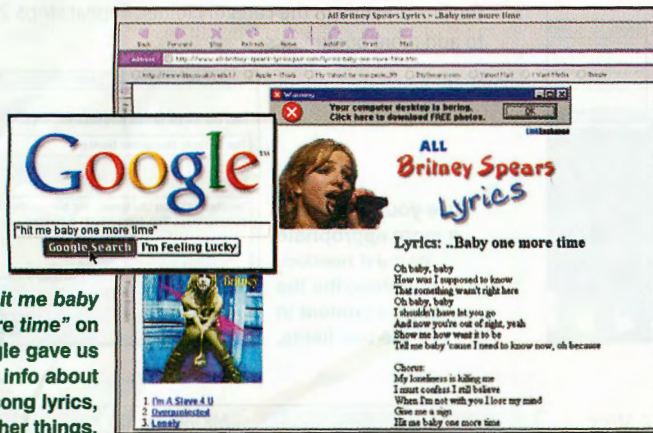
**Tip 1: Be Specific** Type in a vague, one-word search—say, *turkey* if you're looking to travel to that country—and you're going to get equally vague results. Actually, that's more like 7 million vague results, about everything from the Republic of Turkey to grilling turkeys, the Wild Turkey Federation, and the Turkey Trot. The more pertinent key words you can enter in the text box (they don't have to form a sentence), the better results you'll get in return.

Google talks turkey about 7,580,000 ways. If you aren't specific about what you're looking for.





**Tip 2: Use Quotes** Putting quotes around a query is one of the simplest, most powerful tricks for getting accurate search results. If you type *hit me baby one more time* without quotes, your search might yield child abuse content or other, uh, questionable activities. Entering "*hit me baby one more time*" with quotes will return only pages containing that exact phrase, which for the most part should consist of Web pages about Britney's song.



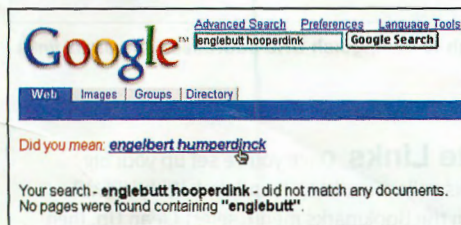
Typing "*hit me baby one more time*" on Google gave us relevant info about Britney's song lyrics, among other things.

**Tip 3: Exclude Terms** Frankly, we were sick of Ms. Spears, so we decided to search for info on one of our favorite Rolling Stones songs, "I can't get no satisfaction" (wisely putting the phrase in quotes), only to find that Britney did her own cover of the song (ugh!)—hence, many of the top search results were Britney related. To rid our search of the pop princess, we used the minus sign (–) to exclude sites containing the term *Britney*. Thus, when we typed "*I can't get no satisfaction*" –*Britney*, our results were Britney free (well, almost).



Place a minus (–) sign in front of a term you wish to exclude, and Google should pull up pages that lack that topic.

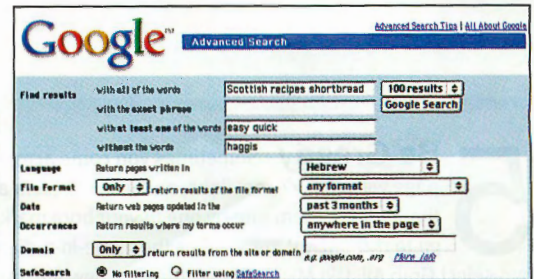
**Tip 4: Use Google's Spelling Checker** How can you possibly search for something if you don't know how to spell it? Let Google do the spelling check for you. If you type an incorrectly spelled query, Google returns your results but also suggests a better spelling in blue italics (a search link) at the top of the page, preceded by the words "Did you mean." Click the link to get the alternative results.



Google's spelling checker is smart enough to decipher even the worst spelling mistakes.

**Tip 5: Use Advanced Searching** When you're looking for something really specific, click the Advanced Search link, found next to the regular search box in most engines. The resulting page provides fields where you can type key words, exact phrases, and words to exclude, as well as select the preferred language, the age of the page results (how long the page has been live or when it was last updated), and more. With some engines, you can even specify the file format—great if you're looking specifically for PDFs or PowerPoint docs.

With advanced searching, you can set specifics to ensure that you get what you want and keep out what you don't.



## Organize Your Web Results



### WHAT YOU NEED

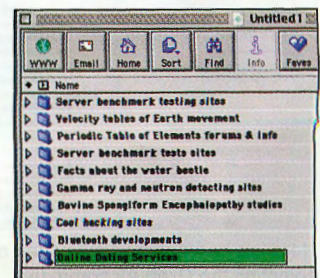
- An Internet connection
- URL Manager Pro 3.0 (on the Disc)

Now that you're a Web-searching pro, you need a way to store your most useful links. "Sure," you say, "that's what bookmarks are for." But trying to figure out which site belongs to what bookmark if it isn't aptly named, or navigating an ever-growing list of URLs, can be frustrating—you'll end up needing a search engine to search your bookmarks. What's the point?

Thankfully, the shareware app URL Manager Pro can collect and organize thousands of Web links in an efficient, organized scheme so you can get the info you need with the greatest of ease. Think of it as the genius sibling of your browser's dimwitted Favorites menu. Here's how to set up the app and use it globally across your browser and email apps.

**1 Create a Catalog** Launch URL Manager Pro (URLMP), then launch your Web browser; URLMP's globe-in-a-diamond icon automatically appears in the menu bar. With URLMP active, select New from the File menu to open a new bookmark catalog file. Under the Bookmarks menu, select New Folder, and then rename the folder with a category that fits your interests: music, news, sports, Mac stuff, herring, whatever. Add as many folders as you like. When you're finished, click Save, give your bookmark file a name, and save it in URLMP's Startup Items folder.

Create a few folders and name them according to topics you would typically bookmark.





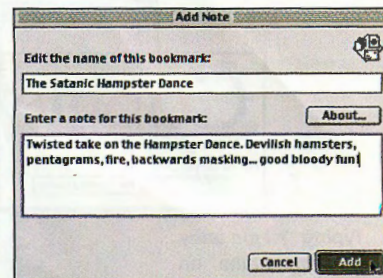
**2 Grab URLs** Time to add bookmarks. Click the WWW button in the bookmark window to call up your Web browser. Notice that your bookmark catalog's name now appears in the menu bar. Type the URL of a site you wish to bookmark or call up one of your previously stored bookmarks; URLMP operates independently from your browser's bookmarks. In your bookmark menu, select an appropriate category, and then select Add Bookmark.



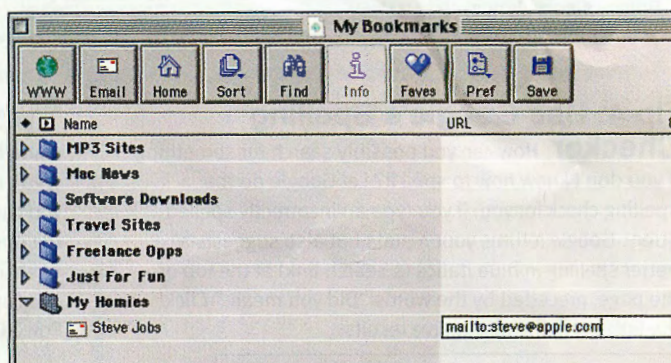
Once you create and save a bookmark catalog, you can store bookmarks directly to it via its menu.

**4 Store Email Addresses** URLMP can also store email addresses that you access from your browser or email client. In your bookmarks catalog window, create a new folder and title it accordingly, with a name like "Contacts" or "Address Book." Under the Bookmarks menu, select New Bookmark. Toss the new file into your email-designated folder and rename the file with your addressee's name. Rename the URL with the person's email address. URLMP automatically converts the URL to a Mailto link. Double-click the file to launch an addressed email in your email app (as specified in URLMP's preferences), or, if you're Web surfing, select an email link from your bookmarks menu.

**3 Make a Note** In the Add Note dialog that appears, you can fill in more descriptive info about your new bookmark. In the top field, edit the name of the bookmark if necessary. In the bottom field, write a description of the site's contents for your reference, then click Add. The app automatically stores the link and info in the category folder. Repeat steps 2 and 3 to add more bookmarks.

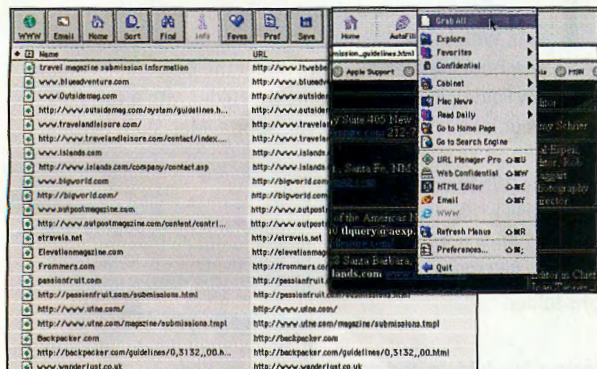


Give your bookmark a more appropriate name if needed, and describe the page's content in the text fields.



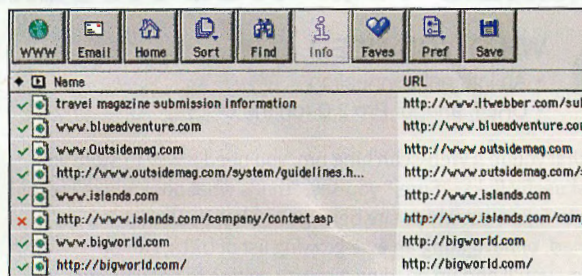
URLMP is smart enough to distinguish URL addresses and email links within one window.

**5 Be Greedy** Sometimes you come across a Web page with tons of cool links, and you want 'em all. Rather than adding them one by one to your bookmark folders, go to the URLMP menu (click the globe-in-a-diamond icon), and select Grab All. URLMP instantly creates a new file, listing all the links. You can save that file as is, or drag and drop the links into your bookmark catalog's file folders. To edit or add info to a link, select it and click Info. In the Get Info dialog, you can edit the bookmark name, add descriptive text, and assign attributes.



Here, we bookmarked every link on a Web page by merely selecting the Grab All command.

**6 Validate Links** Once you've set up your big hunk-o-links collection, keep it updated. With URLMP active, from the Bookmarks menu, select Clean Up, then Validate. URLMP checks to see if all the links in your collection are still active. The app marks good links with a green checkmark and dead links with a red X. This function is especially helpful to Web masters, who can use it to test and maintain links on their own Web sites.



If you're a bookmark packrat, you'll need the Validate function to weed out dead sites.

Knowledge-retrieval expert Jason Ditzian has worked on the development of next-generation search technology, as well as spending countless hours scouring the Web as a content editor.



# Burn a Multisession CD for Your PC Pals

by Deborah Shadovitz

EASY

## WHAT YOU NEED

- Roxio Toast (not Toast Lite)
- Blank CD-R or CD-RW
- CD burner

You're finally getting your act together and compiling an electronic portfolio of your work onto a CD. Because you've got your brag-worthy files spread all over your hard drive and various CDs, you burn your portfolio in separate Toast sessions rather than resort to copying all the files to your hard drive (and eating up precious disk



PHOTOGRAPH BY W.B. JONES

**Burn multisession CDs without burning your PC friends.**

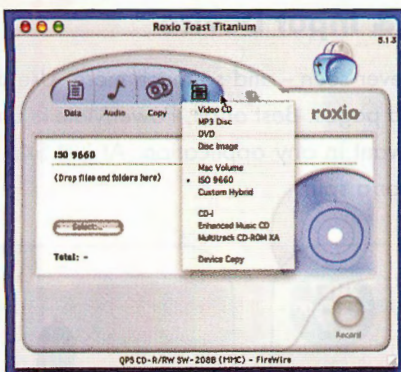
space) to burn everything in one session. When you pop your newly burned CD portfolio into your Mac (or any Mac), each session appears with its own CD icon on your desktop. However, when the head cheese at your dream job destination pops your CD portfolio into a PC, he or she only sees the last session you burned. Crikey!

To avoid these shortcomings, use Roxio Toast's ([www.roxio.com](http://www.roxio.com)) session-merge feature that allows Windows users to access a multisession CD's full contents. Here's how.

## 1 Make It Mac and PC Friendly

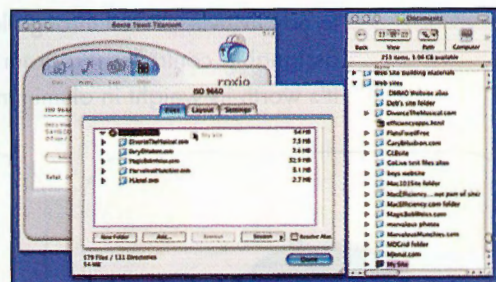
Stick a blank CD-R or CD-RW disc into your CD-burner drive and fire up Toast. In the dialog, click and hold the Other button and choose ISO 9660 from the pop-up menu. Then click Select in the ISO 9660 pane to open the ISO 9660 settings dialog. Click the Settings tab. From the Naming pop-up menu, select Allow Macintosh Names.

Choose ISO 9660 as the type of disc to burn so that your CD will play nice with Macs and PCs.



## 2 Create the Main Directory

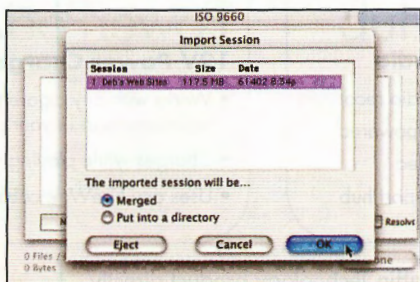
Click the Files tab and click New CD to create a new CD folder. Give it an all-encompassing name that describes what will reside on your disc (we titled ours "Deb's Web Sites"). Then drag the first round of files into the window. If you want to subcategorize the content, click New Folder, name the folder appropriately, and organize your files accordingly. When finished, click Done, click Record in the main dialog, choose a write speed from the Speed pop-up menu, and click Write Session to burn.



Drag any file or folder onto the ISO icon to add it to the session; click New Folder if you want to organize content further.

## 3 Merge Sessions

When Toast finishes toasting your session, it'll chime and display a dialog telling you it's done; click Eject in the dialog to eject the disc, and then reload it (push the tray back in). Click Select to open the ISO 9660 settings dialog again, click and hold Session, then choose Import Session. In the resulting dialog, select the Merged radio button and click OK. This allows files from all sessions to commingle in one main directory.



Select Merged to have Toast integrate previous sessions with subsequent ones.

## 4 Load Up Round Two

Drag files for your next session into the window and organize the files; they'll intermingle with the ones from your first session. You can add, move, rename, or delete any folder or file; the resulting CD will reflect your changes. Click Done when finished and then Record to burn the next session. When Toast has finished, click Eject, reload the CD, click Select, and repeat this step for any remaining sessions. Congrats—your PC pals will be thrilled.



Burning a CD is as simple as clicking the Record button and then clicking Write Session in the resulting dialog.

Mac advocate Deborah Shadovitz gets visions of spinning CDs in her head when she goes rollerskating.



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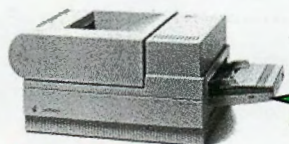
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168 pin DIMMs		<b>\$13</b>	<b>\$17</b>	<b>\$27</b>	-	-	-
72 pin SIMMs		<b>\$9</b>	<b>\$19</b>	-	-	-	-

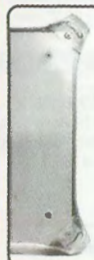
Please be aware that the memory market is extremely volatile.  
Check our website for the most up-to-date pricing.  
Prices listed are web prices only, not in-store.



17" LCD  
iMac!

Now On Sale — \$ave Big!

## Macs, Macs, Macs! New, Refurbs & Discontinued Models, too!



**G4 Tower**  
800/933/Dual 1GHz  
2 Free 512MB RAM  
& Free Shipping!



**G4 iMac**  
700 MHz/CD-RW  
Just Reduced!



1 Year Factory Warranty!

**Refurb Specials**

PowerBook G4/550 \$1899  
256/20gb/Combo  
iBook G3/500 \$899  
64/10gb/CD

**ThinkFree Office \$37**

Free w/ any new CPU purchase!



Can't find it?

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Discontinued Macs!

Refurbs!

We've Got It!

**Word/Entourage 2001**

Only \$99 with any CPU Purchase



**TRADE UP YOUR G4 NOW! CALL FOR A QUOTE 1-800-80-WEBUY**

## Hard Drive Sale



Size	RPM	Type	Internal/External	Price
60gb	7200	IDE - ATA 100	I	\$ 94
80gb	7200	IDE - ATA 100	I	118
120gb	7200	IDE - ATA 100	I	199
60gb	7200	FireWire® Oxf 911	E	169
80gb	7200	FireWire® Oxf 911	E	189
120gb	7200	FireWire® Oxf 911	E	249
20gb	4200	IBM 9.5mm/Laptop	I	105
30gb	4200	IBM 9.5mm/Laptop	I	144
40gb	4200	IBM 9.5mm/Laptop	I	167
60gb	5400	IBM 12.5mm/Laptop	I	369
External 3.5 FireWire case w/ Oxford 911				69

## Software & Specials!

**ThinkFree Office** \$ 37  
**AirPort® BaseStation-Gray** 149  
**Mac® OS 9.0 w/Free 9.1 CD** 89  
**Mac® OS 8.6 w/Free 8.5 CD** 79  
**Mac® OS 8.1 CD only** 39  
**Microsoft Word/Entourage 2001** 129  
**Kensington Flylight USB** 16  
**DVD-R 10-pak 4.7gb (single sided)** 29  
**DVD-R 9.4gb (double sided) ea.** 6  
**Griffin PowerMate** 40  
**Griffin iMate USB/ADB Adapter** 35  
**Griffin iMic USB Audio Adapter** 30

**Dr. Bott ADC/VGA Extractor** \$ 27  
**G4Port Internal Serial Port** 39  
**Epson Perfection 1650 Photo Scanner** 189  
**Epson Perfection 1250 Photo Scanner** 125  
**LaCie CD-RW 40x12x48 USB/FireWire** 212  
**LaCie CD-RW 48x12x48 USB/FireWire** 236  
**LaCie Pocket CD-RW 24x10x24 USB/FW** 257  
**LaCie Pocket CD-RW 8x8x24 USB/FW** 135  
**Contour Designs Shuttle Pro** 93  
**Color Keycaps for Final Cut Pro** 69  
**Pioneer DVR-104 DVD-RW Internal** 275  
**Macally PCI Card Dual USB 2.0** 24



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\*Check website for details on new computer purchases. Not responsible for typographic errors. Not valid in combination with any other promotions.





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## Legacy Mac memory

Memory for your Legacy Mac and Mac clone!



### 168PIN Mac 5V DIMMs 60ns/70ns

Non EDO

64MB \$24.75 128MB \$27.49



EDO

64MB \$24.99 128MB \$27.99

### 168PIN 3.3v Mac DIMMs EDO 60ns



32MB \$17.99

64MB \$24.99

### 72PIN FPM SIMMs for 60ns/70ns



32MB \$15.97

64MB \$19.95

## 3.5" SCSI drives



500MB Major Manufacturer \$19.95  
1" Low Profile, 90 day OWC warranty

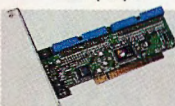
9.1GB IBM UltraStar 18ES 7200rpm \$54.95  
7.0ms, 2048k Buffer, 1" LP, new w/1yr OWC warranty

18.4GB Seagate Barracuda 36ES 7200rpm \$179.99  
8.5ms, 2048k Buffer, 1" LP, new w/3yr Seagate warranty

36.4GB Quantum Atlas IV 7200rpm \$129.99  
6.3ms, 2048k Buffer, 1.6", new w/5yr Quantum warranty

## ATA/IDE PCI cards

Use ATA / IDE (3.5") hard drives in ANY PowerMac with a PCI slot!!



SIIG, Inc.

ONLY \$79.97!

Ultra133 ATA/133 Mac PCI Controller

Above three cards compatible with ALL Apple PowerMac models and compatible Mac Clones with an available PCI Slot. Will allow use of up to 4 IDE/ATA Hard Drives.

ACARD AHard PCI Ultra ATA/66 Mac PCI Controller \$69.95  
Sonnet Tempo ATA/100 PCI Mac Controller Card \$99.95

## Memory for Apple G3/G4 PowerMacs, PowerBooks, iBooks, iMacs & Cubes!

### PC133 CL2 & CL3 SDRAM DIMMs



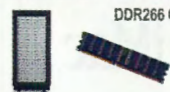
For all PowerMac G3 Models, PowerMac G4 350-500MHz (except G4/466MHz which requires PC133), All G4 Cube Models, and iMac G3/350-700MHz

256MB ..... \$44.97 128MB ..... \$26.99  
512MB ..... \$79.95

Apple includes only standard PC133 CL3 memory, but you can get extra performance by upgrading to High-Performance PC133 CL2

256MB PC133 HiPer CL2 2-2-2 ..... \$49.95  
512MB PC133 HiPer CL2 2-2-2 ..... \$94.95

### Apple Xserve G4 Server



DDR266 CAS 2.5 184pin DIMM

256MB ..... \$59.95

512MB ..... \$149.95

Must be installed in matched pairs

### PC100 CL2 SDRAM DIMMs

For all PowerMac G3 Models, PowerMac G4 350-500MHz(except G4/466MHz which requires PC133), All G4 Cube Models, and iMac G3/350-700MHz Models.



128MB ..... \$26.95 256MB ..... \$39.95\*  
256MB ..... \$44.95\*\* 512MB ..... \$78.99\*\*

\* For all PowerMac G3 models & PowerMac G4 'Yikes' PCI models ONLY!  
\*\* For PowerMac G4 AGP / Sawtooth models, G4 Cube, iMac 350-700MHz ONLY  
Also compatible with Intel / AMD based 'Wintel' machines.

## 3.5" ATA/IDE drives



10GB Western Digital Caviar 7200rpm \$54.99  
2048k cache, ATA/100, 3yr WD warranty

40GB Maxtor DiamondMax D540X \$77.95  
5400RPM, <12ms seek, 2048k cache, ATA/100, 3yr Maxtor warranty

60GB IBM Deskstar 120GXP 7200rpm \$92.99  
8.5ms seek, 2048k cache, ATA/100, 3yr IBM warranty

80GB Seagate Barracuda IV 7200rpm \$119.95  
8.9ms seek, 2048k cache, ATA/100, 3yr Seagate warranty

120GB IBM Deskstar 120GXP 7200rpm \$159.99  
8.5ms seek, 2048k cache, ATA/100, 3yr IBM warranty

120GB Western Digital 7200rpm SPECIAL \$199.99  
JUMBO 8MB cache, ATA/100, 3yr WD warranty

Note: Above ATA Drives are fully compatible with all versions of vanilla ATA/IDE, ATA/33, ATA/66, ATA/100, ATA/133, EIDE, UDMA, Etc. Drives may be used with any Mac that has built in IDE/ATA or an added ATA/IDE controller (such as by VST, Acard, Sonnet).

Use ATA Drives in ANY PCI PowerMac! Don't have IDE/ATA built in or want a faster ATA/133 interface? OWC has the answers!



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### PC133 CL3 SO-DIMMs

For Apple iBook 300-600MHz, iMac G4/700-800MHz, PowerBook G3 FireWire (1yr 2000, aka Pismo), PowerBook G4 models 400MHz - 667MHz



256MB ..... \$46.95  
512MB ..... \$89.99 G3 Pismo & iMac G4 ONLY!  
512MB ..... \$134.99

Above memory operates PC100 CL2 in models utilizing PC100 memory.

### PC100 CL2 SO-DIMMs



Apple iMac 233/266/333MHz models (all Rev A-D), PowerBook G3 Wallstreet (1998), PowerBook G3 Lombard (1999).

256MB ..... \$54.95 128MB ..... \$27.99  
256MB Low Profile. \$64.99\*

\* Now you can have up to 512MB in your iMac or above PowerBook model

Norton  
SystemWorks  
Bundle

only  
\$8.97!



• Compatible with OS 8-9.x and OS X!  
• Includes Norton Utilities 6, Norton AntiVirus 7, and Dantz Retrospect Express!

## 2.5" ATA/IDE notebook drives



For Apple iBook Models\*, PowerBook G3 & G4, PowerBook 150/190/1400/5300, Duo 2300/2400, 20th Anniversary Mac; PC/Wintel Laptops. The iBook models require 9.5mm drives.

20.0GB Fujitsu MHR202AT ..... \$99.97  
5400RPM 2048k Buffer 9.5mm Slim 3yr warranty

20.0GB IBM Travelstar 40GN ..... \$99.95  
4200RPM 2048k Buffer 9.5mm Slim 3yr warranty

32.0GB IBM TravelStar 48GH 5400rpm ..... \$134.99  
5400RPM 2048k Buffer 12.5mm Slim new w/1yr OWC warranty

40.0GB IBM TravelStar 40GN ..... \$167.95  
4200RPM 2048k Buffer 9.5mm Slim 3yr warranty

40.0GB IBM Travelstar 40GNX 5400rpm 9.5mm ..... \$259.99  
5400RPM 2048k Buffer 9.5mm, super-slim 3yr IBM warranty

60.0GB IBM Travelstar 60GH 5400rpm ..... \$389.95  
5400RPM 2048k Buffer 12.5mm 3yr warranty

Put your existing notebook drive into a FireWire or USB Case!



• OWC Mercury Express 2.5" USB 1.1 Kit \$29.95  
• OWC Mercury Express 2.5" FireWire Kit \$54.95



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## Mercury Elite FireWire & USB

Top-Rated OWC Mercury Elite FireWire Solutions are ideal for today's high speed Storage, Audio/Video, and Backup needs! High Performance and Superior Reliability come in this Elegant solution by means of the best components coupled with the Oxford911 bridge solution with data rates exceeding 40 MEGABYTES PER SECOND!

Plug and Play compatible with Apple OS 8.6-9.2.2, OS X; Windows 98SE, 2000, XP; Any OS with FireWire or USB\* support. \*USB equipped models only

**Key Features:** Cool Blue Activity Indicator, Near Silent Drive Operation, Large 2MB Data Buffer, Fully Audio/Video Capable, 2 FireWire Ports, 2 USB Ports\*, All Connecting Cables Included, Intech Speedtools Performance Utilities Included, Data Rates in EXCESS OF 40 MEGABYTES PER SECOND!

### OWC Mercury Elite

	FireWire	FireWire/USB 2.0/1.1
40GB 7200RPM	<b>\$159.99</b>	<b>\$179.95</b>
60GB 7200RPM	<b>\$179.99</b>	<b>\$199.95</b>
80GB 7200RPM	<b>\$199.99</b>	<b>\$229.95</b>
120GB 7200RPM	<b>\$279.99</b>	<b>\$299.95</b>
160GB 5400RPM	<b>\$349.99</b>	<b>N/A</b>

#### All OWC Mercury Elite solutions feature:

- Cool Blue Activity Indicator LED
- Super Quiet operation
- 2 FireWire Ports
- 1 USB Port (USB Equipped Models Only)
- Fully Suitable for Digital Audio/Video applications
- Large 2048K Data Buffer
- U.S./International 90-240v AutoSwitching
- FireWire Cable Included



MyMac.com review  
5 out of 5

James Coates of the Chicago Tribune "Mac users likely will just break into smiles when they plug this high speed hard drive into the FireWire ports on their machines."



All OWC Mercury FireWire Hard Drives include Intech's SpeedTools Utility for Mac.



- USB Cable Included (USB Models Only)
- Intech HD Speedtools Included
- Compatible with ALL Apple OS Versions 8.5-9.2.x; Apple OS X 10.0.3 and higher (including 10.2)
- Compatible with MicroSoft Windows 98SE, ME, 2000, XP and any OS that supports Firewire or USB (USB Models Only) storage devices.
- 2 Year Warranty

## Mercury On-The-Go FireWire Drives

### Mercury On-The-Go

The OWC Mercury On-The-Go is the lightest and most compact high performance FireWire solution available! With the same Oxford911 bridge as our Elite Series, this gems sustain data rates in excess of 20 MEGABYTES PER SECOND!

MacAddict "Droolworthy"

Plug and Play compatible with Apple OS 8.6 - 9.2.2, OS X; Windows 98SE, 2000, XP; Any OS with FireWire Support.



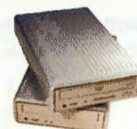
**Key Features:** Shock Absorbent design isolates drive mechanism from casing, Cool Blue Activity Indicator, Near Silent Drive Operation, Large 2MB Data Buffer, FireWire & Power Adapter included, may be bus powered or powered using included Power Adapter. Intech Speedtools Performance Utilities Included.

32GB 5400rpm	<b>\$209.97</b>	20GB 4200rpm	<b>\$179.97</b>
40GB 5400rpm	<b>\$319.99</b>	40GB 4200rpm	<b>\$249.97</b>
60GB 5400rpm	<b>\$449.97</b>		

FireWire Cable and AC Power Adapter included. Drive may be powered by FireWire Bus or with included power adapter.

## OWC Mercury CD-R/CD-RW/DVD-R/DVD-RW FireWire and USB Solutions

Whether your looking to burn custom CDs, make your own Movie DVDs, backup data, etc., we have a solution for you! With support available for FireWire, USB 1.1, and USB 2.0 - Mercury Solutions are plug and play on a wide variety of Apple PowerMacs and even PCs too! Standard Features: US / International AutoSwitching Power supply, 2 FireWire Ports, 1 USB Port (on USB equipped models), FireWire Cable included, USB Cable Included (on USB equipped models) 25 Pack of CD-R Media with Jewel Included, 5 Pieces DVD-R 2X Media (DVD Model only), Compatible with Apple OS 8.6 & Higher, 1yr Warranty.



#### CD-R/RW External Solutions:

Compatible with Apple iTunes, Roxio Toast, CharisMac Discrite, and just about any Windows CD Authoring or Player software.

**Mercury 40x12x48x CD-R/RW with 8MB Buffer & BurnProof Technology**

**Mercury 24x10x40x CD-R/RW with 2MB Buffer & SmartBurn Technology**

**Mercury 16x10x40x CD-R/RW + 16x DVD-ROM Combo Burner/Player**

Roxio Toast Lite 5.x also included with OWC CD-R/RW Solutions

FireWire	FireWire + USB 1.0 / 2.0 Support
<b>\$199.95</b>	<b>\$219.97</b>
<b>\$149.95</b>	<b>\$169.97</b>
<b>\$229.95</b>	<b>\$249.97</b>

#### DVD-R/RW + CD-R/RW Solutions:

Compatible with Apple DVD Studio Pro, Apple iTunes, Roxio Toast, CharisMac Discrite, and just about any Windows CD/DVD Authoring or Player software.

**Mercury DVD-R/RW + CD-R/RW Pioneer DVR-104 External Solution**

CharisMac Discrite 5.x also included with OWC DVD-R/RW + CD-R/RW Solutions

FireWire	FireWire + USB 1.0 / 2.0 Support
<b>\$399.97</b>	<b>\$429.99</b>

OWC also stocks FireWire and USB Storage Solutions from Lacie and Ezquest. Call or visit <http://www.MacSales.com> for all of the latest products offered by OWC

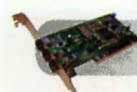
## PCI FireWire/USB Cards

Add FireWire and/or USB to your Mac from only \$24.97!

There are thousands of USB and FireWire products you can use with just the addition of a simple PCI card!

#### IBM CardBus PCMCIA 2 FW for Laptops \$29.97

The IBM IEEE 1394 CardBus Adapter lets you add IEEE 1394-enabled peripherals to CardBus-equipped notebook computers. It has transfer speeds up to 400Mbps, making it the perfect choice for high-speed storage and video/audio capture. Other features include: automatic configuration (no IDs or terminations necessary) and hot-pluggability.



**OWC Lucent \$24.97**  
3-port PCI FireWire Card

Compatible with OS 8.5 and higher, including OS X

The OWC 3 Port FireWire PCI interface card adds FireWire support to PCI based Macintosh models or PCs. It is ideal for older Power Macintosh desktop computers or clones as well as PCs that need the advanced technology offered by FireWire.

#### MacAllly Dual USB PCI Card \$24.95

Compatible with Mac OS 8.5.1 or later • Installs quickly and easily to internal PCI slot • Provides 2 USB Type



**MacAllly \$79.95**  
2 FW & 2 USB 2.0 / 1.0 PCI

Compatible with OS 8.5 and higher, including OS X

#### OrangeMicro 4 FW & 5 USB v1.1/2 \$119.95

Add USB 2.0 Hi-Speed and FireWire technology to your Macintosh or PC computer! The OrangeLink® provides both FireWire and USB 2.0 Hi-Speed for any computer - Mac or PC in a single PCI slot. It is ideal for legacy Macintosh computers as well as Pentium® PCs which need FireWire® (also known as IEEE-1394 or LUNIK), in combination with USB 2.0 Hi-Speed.

Provides both FireWire & USB ports on one PCI card • Supports hot swap and Plug-and-Play • Easily download your video from high-resolution digital camcorders and set up a DV editing studio on your computer • Add virtually unlimited storage with multiple FireWire and USB external hard drives and CD-RW drives • Installs quickly and easily to internal PCI slot • Supports all USB speeds: USB 2.0 EHCI 480 Mbps and USB 1.1 OHCI 12 Mbps • Connects both USB 2.0 or USB 1.1 Devices to your computer simultaneously





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## OWC Laptop Screen Protectors

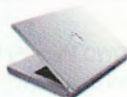
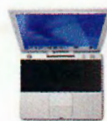
### Protect your investment!

OWC Laptop Screen Protectors PREVENT Marks on your PowerBook LCD Screen! FREE iKlear Apple Polish included for a 'Klean Start!'



Made in the USA of top quality, glove soft leather, OWC LSPs are both a durable and attractive solution to a known problem.

**LSP WallStreet, Lombard, Pismo \$14.99**



### OWC Apple Bit Kit \$7.95

Just what you need for installing memory or a hard drive and more for Apple Desktops, PowerBooks, iBooks/More



## PowerBook Accessories



### Roadtools Podium CoolPad \$29.95

For PowerBook, iBook, ANY-Laptop! Available in Black or White



### Roadtools Traveler CoolPad \$19.95

For PowerBook, iBook, For PowerBook, iBook, ANY-Laptop! Available in Black or White. Rotates 360 degrees with ease.

### LapBottom Heat Absorbing Pad \$24.95



### OWC Mobility Bundle #4 for G4 PB \$54.95

Includes TiG4 LSP, LapBottom, and RoadTools Podium(white) - Save 25%!



### OWC Mobility Bundle #6 for iBook \$49.95

Include iBook LSP, LapBottom, and Roadtools Podium(white) - Save 27%

### Madsonline PowerBook Power Adapters Generation Gap \$19.95

Allows previous PowerBook G3 Adapters to power New iBooks and PowerBook G4s

### Madsonline Auto/Air Bundle for PowerBook G4 & iBook (Dual USB) \$78.95

Includes Auto Adapter and Airline Power Adapter to keep powering while on the go.

## iPod Accessories

### The Pod Protector

without belt clip \$27.95 with belt clip \$29.95

Top Quality leather, computer stitched makes a perfect fit for protecting your Apple iPod. Clear vinyl protects the screen and buttons while allowing complete functionality.



### Griffin Technology PowerPod AutoAdapter \$19.95

Power to the iPod on the road

## PowerBook Carrying Cases

### OWC TiG4 Carrying Case \$29.95



### Madsonline G4 Saver \$47.95



### Zero Halliburton Z3 Laptop Case \$209.95

For iBook (Dual USB). Available in Gun Metal and Silver

### Zero Halliburton Z5 Laptop Case \$219.95

For PowerBook G4 Series. Available in Gun Metal and Silver

## Mac PowerBook Batteries

Genuine Apple PowerBook G3 WallStreet Lilon \$159.95

Genuine Apple PowerBook G3 Lombard/Pismo Lilon \$169.95

Genuine Apple iBook (Clamshell 300-366 Models) \$149.95

## Keyboards and Mice



### MacAlly iOptiNet 3 Button USB Mouse \$33.95

3 Button USB Optical Scrolling Mouse. 5 Color Covers Included.



### MacAlly iOptiNet Jr. 2 Button Mouse \$28.95

Ideal for smaller hands and or portability. 5 Color Covers Included



### MacAlly iKey Ext. USB Keyboard (Graphite) \$17.99

### MacAlly ADB 1 Button Mouse \$17.99

## Mac PRAM Batteries

### Mac 3.6V PRAM replacement Battery \$7.95

High-Capacity 3.6V Lithium Cell

### Mac 4.5V PRAM replacement Battery \$8.95

Standard Rayovac 4.5V Computer Pram Battery

Call or visit website if you are unsure what your computer uses.

## GriffinTech 'Cool Goodies'



### Griffin PowerMate USB \$44.95

Rotary Audio Controller and more!



### Griffin iMic USB MicroPhone Adapter \$36.97

### Griffin iMate USB to ADB Adapter \$38.95

Use your ADB devices via USB!



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**Other World Computing is the Mac Upgrade Expert! We stock the FASTEST G3 / G4 Upgrades, Video Cards, and MORE! Let us make Your Mac a FASTER Mac!**

Upgrade your PowerMac 7300/7500/7600/8500/8600/9500/9600; PowerMac Servers; and Compatible Clones to the Power of a fast G3 or G4 Processor and RUN OS X TOO!



Only from OWC, XpostFacto is a FREE software utility that allows Apple OS X to be used on MANY Legacy PowerMac Models. With only THREE EXTRA CLICKS, you can have your Pre-G3 PowerMac up and running with OS X just like the Mac models Apple does support! Check it out - <http://eshop.macsales.com/m/osxcenter/>

## OWC Mercury G3 & G4 ZIF

G3/533MHz with 1024k L2 Cache **\$199.99**

G3/450MHz with 1024k L2 Cache **\$199.99**

G3/550MHz with 1024k L2 Cache **\$269.99**

High Quality, High-Performance, High-Reliability. OWC uses ONLY processors rated for the speed advertised, if not faster!

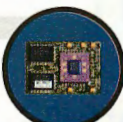
**APPLE OS X ONLY \$39.95**

Apple OS X 10.0.3 CD/License **\$39.95**

Apple OS X 10.0.3 with 10.1.x update **\$49.99**

Apple OS X 10.1.x Update Pack **\$11.99**

Apple OS X 10.2 'Jaguar' Retail Package **\$124.95**



NewerTech is BACK! Back with Newer and FASTER Upgrades for your Mac!

## NewerTech NuPower

The perfect speed jump for any Apple PowerMac G3 or PowerMac G4 'Yikes' PC!! Boost your Megahertz and add the power of AltiVec processing for processing power up 10 TIMES you currently get! Everything runs faster AND you can use those High-Power Apps that REQUIRE a G4 too! Make your machine like new,

**NuPower G4/533MHz 1MB ZIF \$299.95**

Upgrade your PowerMac G3 or G4 'Yikes' PC!!

## NewerTech NuPower Pismo

Upgrade your PowerBook G3 FireWire 400MHz/500MHz (Aka Pismo/yr2000) to the Power of AltiVec with the NuPower Pismo G4!

**NuPower Pismo G4/500MHz 1MB \$299.95**

## ATI Radeon 8500 Mac 64MB DDR AGP Card **\$275.99**

If your PowerMac G4 came with only the ATI 16MB Rage AGP, Unleash it's true video potential with the ATI Radeon 8500 MacEdition! Compatible with any PowerMac G4 Tower with an AGP Slot, the Radeon 8500 provides superior 3D graphics acceleration and the ideal solution for high performance gaming and workstation applications!

High speed 2D and intense graphics realism in 3D gaming environments and workstation applications • Features TRUFORM and SMARTSHADER technologies • Full support for OpenGL and Quicktime • Built in Video Out (S-Video & Composite) for TV/NTSC display • Full DVD Playback supported • Resolutions from 640x480 to 2048x1536 supported! • Features Standard VGA and DVI display connectors - Use any standard display or DVI Flat Panel! • Supports Apple OS 9 and OS X

## ATI Radeon 7000 Mac 32MB DDR PCI Card **\$119.99**

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- 933MHz G4 processor
- 256MB Memory
- 60GB Hard Drive
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- Gigabit Ethernet
- AirPort Card Ready
- NVIDIA GeForce4 MX 64MB

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- 1GHz Dual processor
- 512MB Memory
- 80GB Hard Drive
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- Gigabit Ethernet
- AirPort Card Ready
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### 667MHz

- 667MHz G4 processor
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- 256MB Memory
- 30GB Hard Drive
- Combo CD-RW/DVD
- Gigabit Ethernet
- AirPort Card Ready
- ATI Mobility Radeon 7500

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### 800MHz

- 800MHz G4 processor
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- 512MB Memory
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# OS X v10.2, and iPods

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## NEW eMac G4

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- 700MHz G3 processor
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- 128MB Memory
- 20GB Hard Drive
- Combo CD-RW/DVD
- 10/100 Ethernet
- AirPort Card Ready
- ATI Mobility Radeon

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- 256MB Memory
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- Combo CD-RW/DVD
- 10/100 Ethernet
- AirPort Card Ready
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- Apple Pro Speakers optional

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#147871

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- 15" LCD
- 256MB Memory
- 40GB Hard Drive
- Combo DVD-ROM/CD-RW
- NVIDIA GeForce2 MX 32MB
- Apple Pro Speakers

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#147872

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- 15" LCD
- 256MB Memory
- 60GB Hard Drive
- SuperDrive DVD-R/CD-RW
- NVIDIA GeForce2 MX 32MB
- Apple Pro Speakers

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► Up to 800MHz PowerPC™ with Velocity Engine™

- Up to 256MB RAM
- Up to 80GB HD
- 2 FireWire® ports
- 5 USB ports
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**iMac G4**  
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Complete with 17" CRT!

The new eMac™, Apple's most affordable PowerPC G4 based system, comes complete with a 17" flat CRT display and a space-saving, all-in-one design that fits right in your home. Plus, the eMac includes award-winning digital lifestyle applications and Mac® OS X, Apple's rock-solid operating system.

### Features:

- 700MHz PowerPC G4
- 128MB SDRAM; exp. to 1GB
- 40GB Ultra ATA hard drive
- 24x10x32 CD-RW drive
- NVIDIA GeForce2 MX with 32MB of DDR SDRAM
- VGA video mirroring
- Two FireWire® ports
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eMac G4 only

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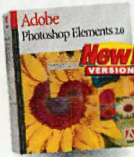
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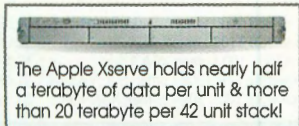
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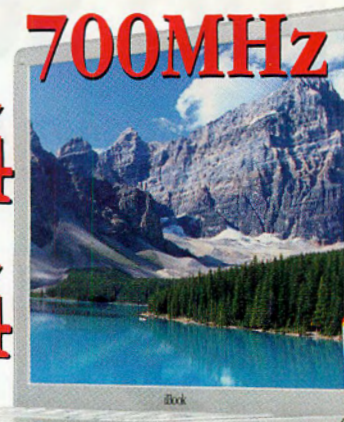
**800MHz**

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#951562	Sonnet Tango Adapter Card 2 Firewire/2 USB Port	\$89.99
#369724	ATI Radeon 7000 Mac PCI 32MB NTSC	\$118.99
#967178	ATI Radeon 8500 Mac AGP 64MB NTSC	\$226.99
#953115	Escape Lab MyVideo USB Video Capture	\$149.00
#952775	Harman Kardon Soundstick 3 Piece USB Speakers	\$178.99
#944700	Dazzle Multimedia Hollywood: 1394 DV (Mac)	\$264.94
#961764	Formac Studio-Analog/DV Converter	\$389.94

### Communications

#863922	Global Village Teleport 56K V.92 Ext Serial Modem	\$72.99
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#969346	Nikon Coolpix 2500 2.0MP 3X/4X 16Mb Cf USB	\$299.00
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#974509	Nikon Coolpix 5700 5.0MP 8X/4X 16Mb Cf	\$1,199.00
#211448	Fuji Photo Finepix 2600 2.1MP 3X Zoom	\$239.00
#964552	Canon Powershot S30 3.2MP 3X 16Mb Cf USB	\$459.00
#962374	Canon Powershot G2 4MP 3X 32Mb Cf USB	\$699.00



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#968284	Canon CE ZR50MC Mini DV Camcorder	\$698.00
#537667	Canon GL2 Mini DV Camcorder	\$2,799.00
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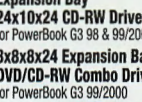
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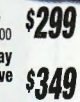
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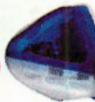
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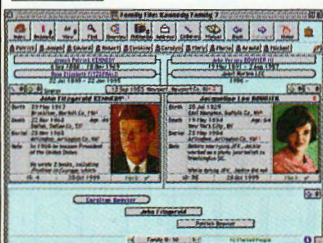
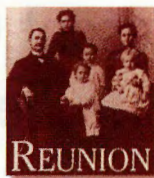
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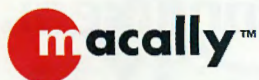
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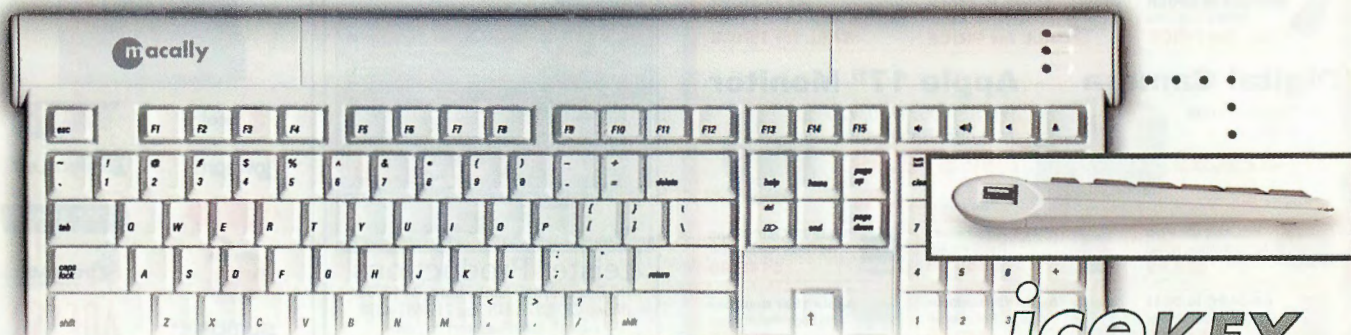


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GDock 2 with 3.5" Floppy Drive .....	<b>\$217.99</b>
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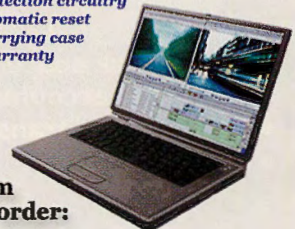
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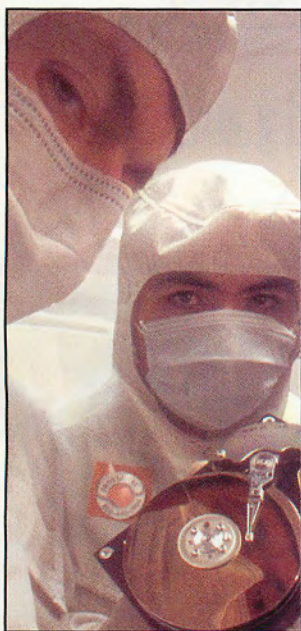
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G4 AGP 466-Dual 1GHz	PC-133 168 pin CL3	-	-	<sup>22</sup> \$2	<sup>39</sup> \$3	<sup>76</sup> \$7	<sup>149</sup> \$14
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G3/G4/iMac® 350-600	PC-133 168 pin CL3	-	-	<sup>22</sup> \$2	<sup>39</sup> \$3	<sup>76</sup> \$7	<sup>149</sup> \$14
PowerBook® G3	PC-100 144 pin CL2	-	-	<sup>26</sup> \$2	<sup>42</sup> \$4	<sup>84</sup> \$8	<sup>165</sup> \$16
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# LETTERS

## NIGHTMARE ON BUG STREET

Your article "50 Biggest Mac OS X Bugs" (Aug/02, p16) scared me. Broken startup folders...errant log-in items...exposure to hackers...kernel panics! I'm so terrified of all those creepy bugs, I've lost the nerve to upgrade.  
—Bill Hirschi

Trust us, Bill, and make the switch. Bugs or no bugs, OS X is more solid than OS 9.—Max

## SABER OF COLOR

Regarding Samuel's lightsaber (Aug/02, p3): It's purple, not pink...punk.—Scott C. Smith, *Industrial Light + Magic*

Pink, purple, periwinkle, puce, whatever—still a mighty fine robot-slicer.—Max

## EVERY GUY NEEDS A LUCKY SHIRT

I'm 14. Every Thursday, my home-schoolers' camp has a dance. When I wear my Mac Geek shirt, the girls ask me to dance. When I wear a more formal shirt, my luck is not as

good.—Ciaran Murphy

Got an extra Geek shirt I can borrow, pal?—Max

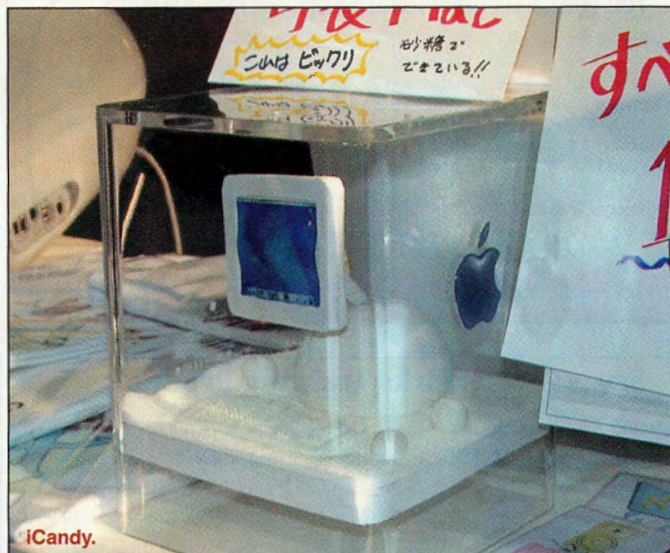
## A SWEET LETTER

How do you do? I am Japanese. English is weak. Sorry! The book was seen. I was surprised. It is because what has recognition in page of 15 (*Get Info*, Jun/02, p14) was carried. iMac confectioners candy in G4 Cube was made by me!! If you interested in [Can Eat Mac]. You can find other at <http://homepage2.nifty.com/nekomputa>. Good-bye.  
—nekomputaY.sasaki

We wondered who created the candy iMac (above, right) in our coverage of Mac Expo Tokyo, and—luckily—the iConfectioner found us. Arigato gozaimasu, Nekomputa-san!—Max

## BUT WAIT! THERE'S LESS!

TiBook owners can save money on the Mobile Mac in your "Dream Machines" story (Jul/02, p30): You don't need



the Belkin Crossover Cable ([www.belkin.com](http://www.belkin.com)) if you get the Targus Retractable Network/ISDN Cord ([www.targus.com](http://www.targus.com)), since the TiBook's port automatically senses crossovers. Plus, the \$9.95 savings brings the system's price down to an affordable \$7,790.59!  
—Rob Pickering

Thanks, Rob. Now you can afford both the Mobile Dream Machine and those Ginsu knives you covet. Sweet.—Max

## CH-CH-CH-CHANGES

In your September issue (*Get*

*Info*, p19), you say the new 17-inch iMac has a GeForce4 MX graphics chip, but the answer to question 31 of that month's "The Ultimate MacAddict Quiz" (p29) says the iMac has an nVidia GeForce2 MX. Wassup?  
—Eddie Szaminski

Our quiz was already at the printer when Apple introduced the new iMac. C'est la geek!  
—Max

## BACKSIDE CACHE

I demand that *Letters* return to its spot following *Editors' Note*. It's now some seedy black-market

## THEY LOVE ME, THEY LOVE ME NOT

Our August 2002 issue marked the official launch of *MacAddict's* redesign, which included a revised rating system and the promotion of feisty lil' Max, our long-time mascot, to editor of his own section, *Log Out*.

As a graphic designer, I absolutely love the new look of *MacAddict*. I'm definitely renewing my "prescription."  
—Steven Barnett

Saying something contrary to the direction in which my magazine is heading earned me Max's one-finger salute (Aug/02, p94). I guess I deserved that. But would you want me to sit back and say nothing like a good little PeeCee user? Not on your life. *I use a Mac!!!*  
—Joey Brassell

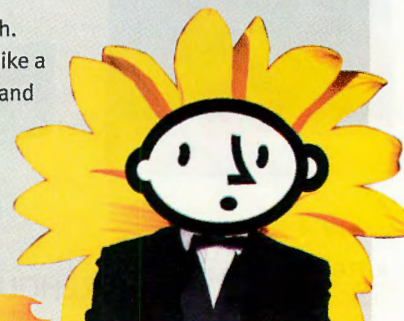
Joey, I raised my middle finger as a salute to your take-no-guff thinking. Uh, that, and because you ticked me off. Peace, bro.—Max

One word: fantastic!—Dave Jagger

I don't know if you should have given Max his own section. He is a defensive jerk.—Fred Martin

Rik says that if I flip someone else off, I'm out. So...I love you, Fred!—Max

The new look is not new enough. How about a 3D issue shaped like a Power Mac G4? Open the case and find letters in the RAM slots, game reviews in the AGP slot, the Disc in the CD drive, and Max's portrait on the G4 chip itself. Now, *that* would be different.—Nevada Dav





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## YOU KNOW YOU'RE A MAC ADDICT WHEN...

...you use the silver Apple logo on your new iMac as a mirror to part your hair.—*Ben Sisley*

...you have a coal-burning portable generator because it's pure Carbony goodness.—*Micky Klugman*

...the only item in the divorce decree that was tooth-and-nail butt-ugly was who got the G4. (She did. I got the children.) —*RFRipp*



You don't need  
to send your  
Mac to college.



surgery place in the rectal chasms of the magazine.—*Collin Anderson*

Rectal chasms have inspired great works of art—just ask the Butthole Surfers or William Burroughs.—*Max*

## BRITS CAN MAKE EVEN SMUT SOUND CLASSY

I'd like to say how pleased I was (in a really British fashion) to find your magazine. Waiting for my plane in a surreal, small-town U.S. airport with a shop that offered only cheese-head hats and a few magazines, I stumbled upon yours amongst gun, fishing, and truck magazines. Imagine my surprise when I found that it was the most informative Mac magazine I have seen—though sadly lacking in bikini-clad lovelies.—*Iain Quinn*  
Bikini-clad lovelies— why didn't we think of that? Where's my Speedo!? —*Max*

# THE SIMS VACATION SUMMER SURFIN' CONTEST

Treat Your Mac—Win a Surfboard

What have you done for your Mac lately? In the spirit of the new Sims expansion pack, The Sims Vacation (\$29.95, [www.aspyr.com](http://www.aspyr.com)), game publisher Aspyr Media and MacAddict want you to take your Mac on vacation. Take your Mac on the best vacation, and you win a 6-foot, 3-inch short board with a custom Aspyr paint job (made by Seek Surfboards; see right).



Can't decide where to take your Mac? Take a cue from those wacky Sims. In this latest expansion pack for the wildly popular game The Sims, they head to the beach, to the woods, and to the mountains to play volleyball, to snowboard, and to find love (and lust).

## HOW TO PLAY

Place your Mac in the best vacation snapshot you can dig up, and send us the picture (feel free to edit the photo). Camel safaris, the halfpipe, the Grand Canyon—they're all fair game. If we like yours best, you'll win the surfboard, and we'll print your vacation picture in the February 2003 issue of our magazine.

**Deadline for entry:**  
**November 15, 2002**



This iMac just got lai'd.

## YOUR MAC'S VACATION

Tell us in 25 words or less where your Mac went on vacation and what it was doing:



At the boardwalk, The Sims were having some fun.

Photographs should be 4 by 6 inches.  
Digital images should be 4 by 6 inches at 300 dpi.  
Only one entry per contestant.

### Contestant Information

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### Contest Rules

The judges will be MacAddict editors and they will base their decision on the following equally weighted criteria: quality of execution, creativity, and humor. All entries must be received no later than November 15, 2002, with the winner announced on or around February 2003. By entering this contest, you agree that Imagine Media may use your name, likeness, and Web site for promotional purposes without further payment. All prizes will be awarded and no minimum number of entries is required. Prizes won by minors will be awarded to their parents or legal guardians. Imagine Media is not responsible for damages or expenses that the winners might incur as a result of the contest or the receipt of a prize, and winners are responsible for income taxes based on the value of the prize received. A list of winners may also be obtained by sending a stamped, self-addressed envelope to Imagine Media, c/o MacAddict, 150 North Hill Dr., Brisbane, CA 94005. This contest is limited to residents of the United States. No purchase necessary; void in Arizona, Maryland, Vermont, Puerto Rico, and where prohibited by law.

## NEXT MONTH:

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We uncover all the secrets of the latest version of Mac OS X: Jaguar.

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# REJECTED MAC HARDWARE

Even the Wizards of Cupertino Occasionally Make Mistakes

The introduction of Jaguar, new and updated iApps, a 17-inch iMac, and the vastly capacious 20GB iPod created excitement aplenty at this year's New York Mac Expo. However, there was some grumbling among longtime Appleites about the lack of new Power Mac and PowerBook hardware. We at *MacAddict* were a bit puzzled ourselves, seeing as how both these popular lines are getting, shall we say, a bit long in the tooth.

To find out what really happened to these long-rumored upgrades, we sent the least conspicuous of our henchpersons—Contributing Editor Angus Pàidean and Eponymeditor and Master of *Log Out Max*—to snoop around the Apple campus and see what dirt they could dig up. After dodging guard dogs and squirting Easy Cheeze onto the lenses of security cameras, they discovered a few discarded prototypes.



**Max wields Easy Cheeze, a staple of covert operatives worldwide. At exactly 02:21:37, the security camera went blank.**

## Max's Report:

Apple says, "We listen to customers." Customers say, "The PowerBook needs a larger screen, longer battery life." Apple thinks, "Leverage existing technology." Solution: a 17-inch iMac powered by a Honda EU1000iA2 portable gas-powered generator in a Ogio Sport Stomper backpack. Good news: Big screen. SuperDrive. 10 hours per tankful. Bad news: Weighs over 60 pounds. Produces toxic exhaust fumes, proven to cause balding, head enlargement, and loss of skin pigmentation. *MacAddict* Rating: Lousy.

**So there I was with a smoke-spewing gas generator rumbling in my backpack, a 17-inch iMac in one hand and an Apple Pro Keyboard in the other, and I thought, "Y'know, that original Apple Portable wasn't so hefty after all."**



**Aye! I stowenlins this picture as covertly as I could before bein' caught by this wee, pompous, fancy-schooled engineer who gave me the ol' Scotch-Toe-in-the-Chocolate-Box. Aye, the boot!**

## Angus's Report:

Sneakin' about where I twern't allowed put the fear on so much that I were feeling a bit tight in the breeks...but sneak I did, up the stair, into the secret area where no man should go, an' saw me a sight that twern't so much a computer, neigh, but a table! T'was naught but a bloody Xserve wi' shanks attached! An' wee, spurtle-shanks a' that. Aye, I'd have passed the bugger by but fer the loud bellaes of the bloody fan, oh, an' th' wee blinky lights. Right! Now, don't get me wrong, yer man Steve is a knackie lad, an making a cairts table ooten a computer might be the steuch of things to come, but methinks it stinks. Oh, and dang those tiny new earbuds! Bloody traitors, all.





# The missing piece of the Mac OS X puzzle



## Introducing Drive 10 version 1.1.

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